



**EiABC**

Ethiopian Institute of Architecture,  
Building Construction and City Development  
የኢትዮጵያ ስነ-ምግባርና ከተማ ልማት ስራ ቤቅ  
Addis Ababa University  
አዲስ አበባ

# **Housing condition of Industrial parks workers**

*The case of Hawassa Industrial park*

By: SELAMAWIT TEKU JEGO

March, 2019 GC

This thesis is submitted to the graduate Program Director of Ethiopian Institution of Architecture, Building Construction and City Development (EiABC) Addis Ababa University, in partial fulfilment of the requirements for the Masters of Science Degree in Housing and Sustainable Development

**Title of Thesis:**

*“Housing condition of Industrial park workers: The case of Hawassa Industrial park “*

**Author:** SELAMAWIT TEKU JEGO

**Date:** March, 2019 GC

**Approved by the Examining Board:**

Imam Mahmoud Hassen (MArch) \_\_\_\_\_

Advisor

Signature

\_\_\_\_\_ Date

\_\_\_\_\_ External Examiner

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

\_\_\_\_\_ Internal Examiner

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

\_\_\_\_\_ Chair Person

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

**Declaration**

I, the undersigned, declare that this thesis is my own and is an original work and has not been presented in a degree in any other university, and that all sources of material used for the thesis have been duly acknowledged, following the scientific guidelines of the Institute.

Student`s Name: **SELAMAWIT TEKU JEGO**

Email: [Lewedesta2012@gmail.com](mailto:Lewedesta2012@gmail.com)

Signature: \_\_\_\_\_

### **Certification**

Here with, I state that SELAMAWIT TEKU JEGO has carried out this research work on the topic

*“Housing condition of Industrial park workers: The case of Hawassa Industrial park “*

under my supervision and it is sufficient for submission for defence.

Imam M. Hassen (MAArch)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

### **ABSTRACT**

Hawassa industrial park is one of the early developed industrial parks (inaugurated on June 2016 GC) found in the Southern Nations, Nationalities and Peoples Regional State (SNNPR) of Ethiopia.

The park is specialized in garment production, and currently has 12,600 employees of which 10,000 are operators (low payed and nonprofessional employees) and 2,600 are professionals and expatriates. The number of employees are expected to grow to 60,000 in the next five years. Most workers have come from different rural area of SNNPR. There is none enough housing provided.

The study focuses on housing condition of the low payed IP workers, unlike different studies made were related to industrial parks development economic impact and health related issues. It assessed the physical, economic and social aspect of the housing condition of industrial park operation workers and analysed the socio-economic impact of the housing condition on the lives of these workers. The study finally forwarded possible solutions to the problems identified.

The housing study was made on two purposively selected case sites (Adis Ketema and Dato Odahe areas of Hawassa industrial park employees living in both case study sites were interviewed and key informants ; Federal , regional and Zonal officials related to the study, landlords, Hawassa city administration, SMFI, the local micro finance institution were primary data sources to get an all rounded data.

The study found out that the workers live in rental houses borderline affordable, however the housing scheme that is currently providing for HIP workers, aside from its inadequacy in terms of numbers has challenges of financial viability for the landlords. It also has limitations in fulfilling basic physical requirement of residence. Over crowdedness and lack of privacy was noted in these houses. But in spite of the poor housing quality and less services availability, large number of workers preferred to rent rooms in new expansion areas of the city: the rural neighbourhoods. The workers social and economic life has also been negativity affected due to their housing condition.

The study finally recommended to the federal, regional and HIP system should do. Housing the IP workers need supported housing development with in and on the satellite towns would share the load. The housing development should not only be provided but must be integrated with services and infrastructures.

**Key terms:** *Industrial park, Hawassa Industrial Park, Housing condition, adequate housing, Socio-economic impact of housing condition*

#### Acknowledgements

First and most of all thanks to God for this great life, for his strength in all good or hard times. And I thank my parents, for your courage to keep on my study, even in very tough

journey (losing my dear mom, Desta Duke) am dedicating it to my dear mom. A big shout out to my father, sisters and brother for supporting me a lot. Especially for my brother Mulualem Teku, for his academic advices and editorial works thank you very much.

I really would like to thank my advisor Imam M.Hassen, for his patient and guidance with my situation when doing the thesis. You gave me courage through the time we worked. I thank you for your inputs and resources you delivered.

I also would like to thank Hawassa Industrial park workers and the city and regional Housing development and administration officials and professional for your welcoming services and getting resources needed.

Finally, my hanks go to my classmates and close friends for your supports. You have pushed me up. Thank you and God bless you.

Selamawit Teku Jego

March, 2019 GC

## Abbreviations

Etb – Ethiopian birr

EIC – Ethiopian Investment commission

IP – Industrial park

HIP – Hawassa Industrial park

HIPD – Hawassa industrial park development

HR – Human resource

IPDC – Industrial park development corporation

MoUDH - Minister of urban development and housing, (Ethiopian)

SNNPR - Southern nations and nationality people region

SMFI - Sidama micro finance institution

TVET – Technical and vocational education training

## Local terms

'Birr' – Ethiopian currency

'Chika bet' – thatch and mud mix wall

'Dankil' depression – The lowest place in Ethiopia

'Equb' – Social money saving system which the collected saving will get turn by turn

'Idir' – Social money saving for emergency times

'Ras Dashen' – The highest peak mountain in Ethiopia

Kire - The garment fiber

List of tables

*Table 2.1 Data collection techniques*

*Table 4.1 Hawassa city Administration Sub cities and Kebeles*

*Table 4.2 Kebeles of built housing in "Adis Ketema" sub city*

*Table 4.3 IP induced housing profile in "Adis Ketema" sub city*

*Table 5.1 Socio-economic data of the respondents (IP Workers and House renter)*

*Table 5.2 Safety and security issues of the respondents (IP Workers)*

*Table 5.3 Physical infrastructures Housing of IP workers in 'Adis Ketema' sub city*

*Table 5.4. Building materials of the housing in 'Adis Ketema' area*

*Table 5.5 Physical infrastructures Housing of IP workers in 'Dato' area*

List of figures

*Fig 2.1 HIP workers dominant residing areas*

*Fig 2.2 Research study framework diagram*

*Fig.3.1 Plan and section of typical inset back-to-back houses*

*Fig 3.2. Typical back-to-back house features*

*Fig 4.1 Location of Hawassa city*

*Fig 4.2 Location of Industrial parks in Ethiopia*

*Fig 4.3 Hawassa city and the sub cites*

*Fig 4.4 Built housing units per HH compound*

*Fig 5.1 Location of HIP and study area (google image 2018)*

*Fig 5.2 Fig 5.2 Study area location*

*Fig. 5.3 Street pattern of 'Addis Ketema area'*

*Fig. 5.3 Street pattern of 'Addis Ketema area'*

*Fig 5.4 Picture of Adis Ketema street*

*Fig 5.5 Figure ground of 'Addis Ketema'*

*Fig. 5.6 Location of studied housing in 'Addis Ketema" area*

*Fig 5.7 IP induced rental housing in 'Addis Ketema' sub city*

*Fig5.8 Location of compound studied*

*Fig 5.9 The compound pictures*

*Fig 5.10 The studied compound in 'Adis Ketema'*

*Fig5.11 (Left) Traditional kitchen and waste collection area*

*Fig 5.12 (Right) Toilet*

*Fig.5.13 Floor plan of HIP rental house*

*Fig 5.14 HIP rental room interior pictures*

*FIG 5.15 – Figure ground of 'Dato Ohahe' study area*

*FIG 5.16 Street pattern of 'Dato' study area*

*Fig.5.17 Location of sample interviewees in 'Dato area'*

*Fig 5.18 Rental prices in "Dato area"*

*Fig 5.19 Physical condition of the housing in "Dato area"*

*Fig. 5.20 'Dato Odahe' are rental houses pictures*

*Fig.5.21 Location of sample compound study*

*Fig.5.22 The compund studied*

*Fig. 5.23 Amanesh house compound*

*Fig.5.24 Amanesh house*

*Fig. 5.25 Toilet ans shower space*

*Fig 5.28 Water supply comparison*

*Fig. 5.29 Cooking energy source comparison*

*Fig. 5.30 Bathroom serve comparison*

*Fig. 5.31 waste disposal system comparison*

*Fig. 5.32 Roof structure condition*

*Fig. 5.32 Doors and windows condition*

*Fig. 5.34 Floor structure condition*

*Fig. 5.35 wall structure condition*

*Fig 5.36 House rent comparison of the two-study areas*

*Fig 5.37 House rent comparison of the two-study areas*

*Fig 5.38 House rent comparison of the two-study areas*

*Fig 5.39 Future aspirations of the workers who want to stay in Hawassa city*

## Table of contents

ABSTRACT .....	iii
Abbreviations.....	vi
Local terms.....	vi
List of tables.....	vii
List of figures.....	vii
<b>Chapter 1- Introduction</b> .....	<b>1</b>
1.1 General Background .....	1
1.2 Problem statement.....	1
1.3 Objectives of the study .....	2
1.3.1 General objective.....	2
1.3.2 Specific objectives.....	2
1. 4 Research questions .....	2
1.5 Scope and limitations of the study .....	3
1.5.1 Scope of the study .....	3
1.5.2 Limitations of the study.....	3
1.6 Significance of the study.....	3
1.7 Organization of the study .....	3
<b>Chapter 2 - Research design and methodology</b> .....	<b>5</b>
2.1 Introduction .....	5
2.2 Research method selection.....	5
2.3 Case selection criteria .....	6
2.4 Sampling selection and Technique.....	7
2.4 Source and Type of Data .....	8
2.5 Data Collection Techniques .....	8
2.6 Data Analysis Techniques.....	9
2.7 Data reliability and validity .....	10
2.8 Research design diagram.....	11
<b>Chapter 3 Literature Review</b> .....	<b>12</b>
3.1 Definition of Industrial park.....	12
3.2 Brief History of Industrial Parks .....	12
3.3 Socio-economic impact of industrial park .....	13
3.4 Definition of Housing.....	14
3.5 Parameters to study housing condition .....	15
3.6 International workers office (ILO) Workers housing standard .....	16

3.7 Urban development and housing challenges of developing countries .....	16
3.8 Industrial parks and housing challenge .....	18
3.9 Best housing for industrial workers in Vietnam .....	21
<b>Chapter 4 - Contextual review .....</b>	<b>23</b>
4.1 About Ethiopia .....	23
4.2 Ethiopia Economy .....	24
4.3 Historical background of industry sector in Ethiopia .....	24
4.4 GTP II and industrial sector.....	25
4.5 urbanization in Ethiopia/ Ethiopian housing strategy .....	27
4.6 History and development of 'Hawassa' city .....	27
4.7 SNNPR Government urban housing provision policy and strategy .....	29
4.8 Housing options in 'Hawassa' city .....	30
4.9 'Hawassa' industrial park.....	31
4.9 A) Employment process of the operation workers in HIP .....	33
4.10 Housing scheme for Hawassa Industrial park workers.....	34
4.11 Future housing scheme plan for HIP .....	36
4.11 Summary of the literature review .....	36
<b>Chapter 5 - Data presentation and data analysis.....</b>	<b>38</b>
5.1 Introduction .....	38
5.2 Socio-economic data collected .....	39
5.3 Case one - HIP Induced housing condition (in Adis Ketema sub city) .....	41
Life story 1: Miss Hiwet Worku .....	46
5.4 Case -Two: Housing condition study of the IP workers in 'Dato Odahe' area.....	49
Life story 2: Miss Amanesh Arba "Dato Wefcho sefer" area.....	53
5.5 Comparison of the two study sites .....	56
5.6 The housing condition analysis.....	56
5.7 Aspiration of the IP workers to their job and stay in Hawassa city.....	60
<b>Chapter 6- Summary of findings and recommendation .....</b>	<b>61</b>
6.1 Housing condition of HIP operation workers' summery .....	61
6.1.1 Physical condition of the housing .....	61
6.1.2 Economic condition of the housing .....	61
6.1.3 Social condition of the housing.....	63
6.2 The socio-economic effect of the housing condition .....	63
6.3. Summary of Findings of the study .....	64
6.4 Recommendations .....	67

6.4 A- Recommendation to Federal level .....	68
6.4 B- Recommendation to regional government and city administration.....	68
6.4 C- Recommendation to HIP .....	69
References .....	70
Annex 1 – Standard questioner for IP workers.....	73
Annex 4- Key informant (HIP Transport service) questioner.....	85
Annex 5 – Applicants screening form for HIP (Gedeo Zonal office) .....	87
Annex 6 House rent agreement paper between house owners and IP workers .....	89
Annex 7 Adis Ketema IP induced housing construction phase progress report paper .....	90

## Chapter 1- Introduction

### 1.1 General Background

All nations strive for economic development. It is imperative for developing countries in order to bring better income and quality of life, Industries play pivotal role in this regard. Many developing countries have started witnessing large industries moving from agricultural economy. Ethiopia, as a developing nation, has been growing its GDP with development of industrial parks as one of the strategies for economic development.

This stride in turn has wider implications, both positive and negative, such as creating job opportunities as well as large-scale urban migrations. Moreover, the industry employees have difficulties in getting adequate accomodation.

Industrial park development has both advantages and disadvantages. As expected, risks of industrial park business and speed of tenant arrival is critical (K. Ohno 2017). Add few more points, possibly related to housing problem. Government usually look at different options for factory workers housing.

According to the study made in Latin America (Duncan, Causes of inadequate housing in Latin America and the Caribbean 2005) , the causes of inadequate housing include: poverty, low-income levels and unemployment, lack of access to land, housing supply constraints, urbanization, insecure property rights for land and housing, poor government policies and regulatory frameworks, displacement through planning evictions, natural disasters, war and lack of access to financing.

The national economic development direction need to integrate adequate accommodation in order to realize the vision. Securing liveable housing for workers in industries is important to continue to benefit from IP developments in different part of the country.

### 1.2 Problem statement

Ethiopian Growth and Transformation Plan (GTP) aims at sustaining the rapid and multifaceted growth with different strategies. One of the strategies is to create favourable conditions for the industry so as to play key role in the economy. The agriculture-led development is gradually shifting toward an industry-led one. As one strategy, industrial parks with specialized productions are being established in different parts of the country. One of the pioneer industrial parks is Hawassa industrial park (HIP) specialized in textile production. It is one of the biggest parks inaugurated in June 2016.

According to the current statistics of Hawassa Industrial Park (HIP) Office, there are 12,600 factory workers in the park as of now, of which 10,000 are operators and the remaining 2,600 employees are composed of professionals and expatriates working in various industries. These workers are employed

through a selection process spear-headed by seven zonal selection stations located in different zones within SNNPR.

The workers are provided with 536 rental housing units which can accommodate only 25 % of the workers of the current employees. These house are planned to be a room for four workers which will be rented only from three to five years. The houses are closer to the transport service lines, therefore preferred by the industry park workers for rent. Accommodation wise, the housing is planned for four people per room (3m x 4m) whose rental fee amounts to 1000 birr per month. The aforementioned housing units are the only ready accommodation but the remaining (75 % i.e. more than 7000 IP operator workers) live in various rental houses scattered across the city.

The housing problem, I believe, is a serious one that affects how people live and enjoy their dwellings relating to social interactions. The problem could thus affect various aspects such as political, social and/or economic. The workers have to find housing with affordable price and good access to services. These different factors affect the way the live and the housing condition they prefer to live in.

### 1.3 Objectives of the study

#### 1.3.1 General objective

This study is mainly aimed at assessing the industry parks workers housing condition of regional towns by focusing on Hawassa Industrial park workers' housing. It also purposes to provide recommendations on possible solutions for the operator workers of the industrial park.

#### 1.3.2 Specific objectives

As part of the general objective, the study has the following specific objectives:

- To assess the prevailing housing condition of Hawassa Industrial park operator workers.
- To assess the socio-economic impact of the housing condition.
- To recommend directions to solutions for the identified problems.

### 1. 4 Research questions

This research endeavour attempts to answer the following key questions:

- A. How is the housing condition of the operator workers of Hawassa Industrial park?
- B. What are the socio-economic effect of the housing condition on these workers?
- C. How could the housing problem be addressed?

## 1.5 Scope and limitations of the study

### 1.5.1 Scope of the study

The geographic scope of this study is restricted to Hawassa city, Southern state (SNNPR), Ethiopia, particularly the Hawassa Industrial park. The housing study has involved two sub cities:

- i. Addis Ketema sub city
- ii. Hawella Tula sub city (Dato area) and

The thematic scope of the study focuses on the housing condition of the operator workers of Hawassa industrial park, the majority of the working force of the park. It seeks to investigate the housing-related social and economic conditions of the workers.

### 1.5.2 Limitations of the study

The study is constrained by the following limitations.

- IPDC could not share the needed documents but the data was collected through interviews and information gathered from key informants/officials and local resources.
- The lack of readily available resource on adequate housing standards (quantified area standards per person), be it of universally accepted or nationally set, was a challenge.
- The absence of directly-related research material on the topic was yet another challenge.

## 1.6 Significance of the study

As stated earlier, this study investigates how Industrial parks workers housing condition are from HIP's case study. The contribution of such study is deemed very important. As various projections indicate, Ethiopia is one of the fastest developing economies in Africa and beyond. It has made its national ambition to achieve the Millennium Development Goals (MDG) and eventually make poverty a thing of the past. One promising national direction set out in this regard is establishing industrial parks in different parts of the country. HIP is one such park and more are yet to be unveiled. Being one of the forerunner parks in the country, HIP can be seen as a model for others to follow. Any research endeavour around it, therefore, is of high importance. I believe that this pioneer study will unearth important issues and solution strategies related to housing useful not just for Hawassa city but also for other existing as well as upcoming industrial parks in the country. Moreover, it is our sincere hope that this early study will serve as a stepping stone for future researchers to build on it and address more issues beyond our scope.

## 1.7 Organization of the study

The thesis is organized into six chapters as follows.

- The first chapter is a general introduction to the study which discusses the problem of the study, objectives of the study, pertinent research questions that are to be answered by the research, the scope and limitations of the study.
- The second chapter discusses the research methodology applied. This chapter describes the methodology, research design, criteria the case study was chosen and why the specific methodology was employed.
- The third chapter is literature review. It addresses relevant and related issues and concepts around the study from international experiences.
- The fourth chapter review contextual study and literatures. It reviews about Ethiopian industrial development history and strategies of development. Under this it describes about Hawassa industrial parks and the housing scheme induced by the HIP. It also discusses reflection of the author on the reviewed literatures.
- The fifth chapter is about the data presentation and data analysis of the study. The collected data of the study will be presented clearly and analysed according with the research questions of the study with the set of parameters.
- The last chapter is on discussion, summary of findings and recommendations. This part starts with discussion of the study and the major findings of the research and concludes with workarounds and recommendations for the housing problem of industrial parks.

## Chapter 2 - Research design and methodology

### 2.1 Introduction

The chapter describes how the study is designed with the framework and the method of choice for the study; The methods relay on documents and published materials from internet and key informants, while simultaneously conducted semi-structured interviews from data collection.

A plethora of literature agree that research design is a systematic plan to study a scientific problem which defines the study type, research question, as well as the data collection method and the analysis plan. Research design is the framework that has been created to seek answers to research questions. In developing a research, the method which best suited to the study is selected based on the problem statement, type of the research question to be answered. The methodology selected should also correspond to the objectives of the study and the problem.

### 2.2 Research method selection

In common practices of research, research design is divided into five broad categories: descriptive, historical, experimental, case study and comparative study. 'The selection of one from these different types of research methods has to be rational, convincing and suited to the topic. In this regard there are three major factors used in the selection of research methodology: the types of questions to be answered or the research content, the extent of control over behavioural events, and the degree of focus on contemporary as opposed to historical events or the time frame' (Yin 2003)

"The type of questions to be answered or the research content is the first and main criteria. Researches concerned with answering: WHO, WHAT (partially) and WHERE questions that are more concerned with the outcomes that could be number of frequency or incidences or identifications shall be investigated through documents, archival analysis and surveys. Whereas, researches concerned in answering the questions HOW? WHY? and WHAT (partially) that are concerned about the underlying issues or operational links or the deeper meaning of a subject matter shall be studied using a case study, history or experiments methodologies (Yin 2003).

This specific study shall assess the housing condition of Hawassa industry park operational employees with the aim of analysing the socio-economic impact the housing condition has on the IP workers. Thus understanding the living condition of industry workers, and the impact it has on their lives in socio economic dimensions calls for a case study method, which will be better suited to understand the underlying socio-economic issues and causative links to housing condition.

Researchers use research methodology that is either quantitative or qualitative. Some research also uses a mixed methodology of the two. Quantitative research measure magnitude with pre-

determined responses, categorized with numerical aggregation in summaries where responses are clustered and is characterized with statistical samples while qualitative researches aims to describe a situation with no pre-determined responses categories which results are illustrative or explanatory and of individual response. (Christopher n.d.) This study uses qualitative study since it deals with, process, interests and roles that are related personal sense of life or experience and difficult to quantify. Furthermore, case studies were studied to have comparative analysis of the two cases housing condition and its socio-economic impact on the lives of IP workers.

### 2.3 Case selection criteria

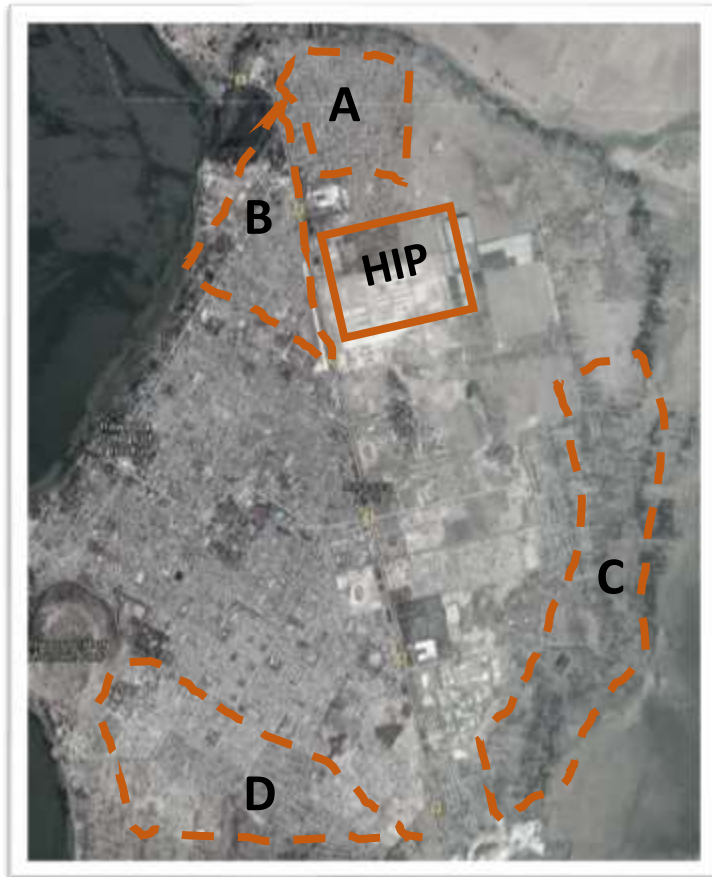
Large number of population are employees in Hawassa Industrial park; of which mass amount come from small towns and rural area from SNNPR. These population live in different parts of the city and in near towns in rental houses. To select the study case site various criteria were used in order to have right area....

The main focus in selecting the case were, to study the housing condition in different part of the city, location, physical status varieties, its economic condition, social condition existing in the neighbourhood or among the HIP operation workers livelihoods. In the pilot study different part of the city where the workers residing were studied. It showed that the workers residing area were locations were proximate to HIP, and were located in peripheries and new expansions of the city; Adis Ketema and Dato Odahe area from the North of the city and to the Southern part ; DMC area, Tula are, Alamura (Referral) area, Adisu Gebeya area were identified to be the housing areas of the workers.

The two case sites were selected with these main criterias;

- Case 1- Housing developed for IP workers area; Adis Ketema; The housing was developed with Industry Park development corporation (IPDC) in collaboration of Hawassa city administration launched a rental housing scheme for Industry Park workers in existing private residences.
- Case 2- From other rental housing area preferred by IP workers; Where large workers service bus was dropping; Dato Odahe area was selected. During the pilot study of this research there were different localities where the workers were residing. Many service buses came to Dato area which is not common in other area.

The sampling type employed is 'purposive sampling' with set of frames to the identified study samples.



### Legend

- A. Addis Ketema area
- B. Dato Odahe area
- C. Chefe Kotijabesa, DMC area
- D. Alamura and Adisu Gebeya area

Figure 2.1 HIP workers dominant residing areas in the city

#### 2.4 Sampling selection and Technique

The samples were selected from HIP workers' different residential areas. Pilot survey done by the researcher in the residential areas in Hawassa, showed where significant number of industry workers reside. Adis Ketema and Dato Odahe area from the North of the city and to the Southern part; Tula area, Alamura (Referral) area, Adisu Gebeya area were identified to be the housing areas of the workers.

The housing study therefore, were centred around two different areas of the city: 'Addis Ketema' sub city and 'Hawella Tula' sub city 'Dato Odahe' area. In Adis Ketema area, the workers must share a room to four workers and in a compound, they live from twelve to sixteen workers. The sample size was made maximum of two interviewees per compound and in Adis ketema area, there were fifteen compounds were randomly selected while eleven compounds in Dato Odahe site; samples were selected. From each case sites there were 25 operators' workers and 5 rental house owners (landlords) were interviewed with a total of 60 interviews from the two areas. In addition to this, 10 relevant people were interviewed in HIP (such as officials and IP bus drivers), IPDC, Hawassa City Housing Development & Administration and one zonal office (i.e. Gedeo zone Trade and Industry Bureau) with standard questionnaire. The total number of interviewees thus adds up to 70 persons.

## 2.4 Source and Type of Data

Each data collected was set out to answer the research question accordingly. The primary data sources were mainly IP workers, officials from regional, zone and federal offices. The observation made in different hours of the day and was systematic and secondary data were collected from relevant documents from published and unpublished sources such as websites, books, written documents from governmental offices which are related to the study, google maps, brochures, reports, journals volume and from different digital media information.

The collected data types were both primary and secondary data. The primary data was collected from IP workers, their landlords and key informants in Federal, regional, zonal and city level officials. The workers were interviewed at their houses in order to understand and experience the situation under the study. The other source of data, secondary data, were collected from relevant literatures from international and contextual reviews. Other related documents from officials as reports or plans and strategies documents were used.

## 2.5 Data Collection Techniques

The primary data were mainly qualitative data collected through different methods and various forms. These were no-structures and semi-structured one to one interviews, observations, measurement, pictures; and documentation through sketching, mapping and photography. The method of collecting the data were formal and informal discussion with primary sources at different levels; such as employees and transport service users and drivers, residents in the areas studied. There were three types of structured questionnaires were distributed to 70 interviewees in Hawassa city and one case from zonal office in the aforementioned areas (see appendix 1 to 4 for details). It is summarized in the following table.

<b>Research questions</b>	<b>Data type</b>	<b>Data source</b>	<b>Data collection techniques</b>
<b>How is the housing condition of the operator workers of Hawassa Industrial park?</b>	Both primary and secondary data	<ul style="list-style-type: none"> <li>- Household survey</li> <li>- IP Operators</li> <li>- House renters</li> <li>- IPDC</li> <li>- 'Hawassa' city officials</li> <li>- Hawassa city map</li> </ul>	<ul style="list-style-type: none"> <li>- Interview</li> <li>- Questionnaires</li> <li>- Sketches and Mapping</li> <li>- Observation</li> </ul>
<b>What are the socio-economic effects of the housing condition on these workers?</b>	Both primary and secondary data	<ul style="list-style-type: none"> <li>- Household survey</li> <li>- IP Operators</li> <li>- House renters</li> <li>- Literatures</li> <li>- Key informants</li> </ul>	<ul style="list-style-type: none"> <li>- Interview</li> <li>- Questionnaires</li> <li>- Literature reviews</li> </ul>
<b>How could the housing problem be addressed?</b>	Both primary and secondary data	<ul style="list-style-type: none"> <li>- Collected Data IP Operators, officials</li> <li>- Literatures review of best practice</li> <li>- Existing policy</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis</li> <li>- Literatures</li> </ul>

*Table 2.1 Data collection techniques*

## 2.6 Data Analysis Techniques

Qualitative Data Analysis is described as 'the range of processes and procedures whereby we move from the qualitative data that have been collected, into some form of explanation, understanding or interpretation of the people and situations we are investigating'. The collected data are interpreted and analysed predominantly through qualitative analysis techniques. It employs approaches including but not limited to content analysis and comparative analysis of the gathered data with existing literature. Content analysis; the procedure for the categorization of verbal or behavioural data for the purpose of classification, summarization and tabulation, can be done on two levels. Either In descriptive way (what the data is) or in in interpretative way (what was meant by the data). (Christopher n.d.) Comparative analysis is used to compare the two study site characters and try to explain, understand the situation and bring meaningful conclusions.

The housing condition study will study from their neighbourhood to the housing rooms the workers are living in (space); with parameters concerning the physical, social and economic conditions. In the physical condition studies; building material used, condition of it, the available or missed services and infrastructure. The social condition in the other hand will be studying their interaction, safety and security problem. The last issue in studying the housing condition will deal with the economic condition, income, expenditures categories and their effects will be presented and analysed. The analysis will be made individual of the two case sites and comparing the impression of each site characters.

## 2.7 Data reliability and validity

The study was made mainly focusing to the thematic scope; Hawassa city, but other sources of data were collected from Addis Ababa, the federal IPDC to zone office related to the IP workers recruitment process from Dilla town. Data from these sources were cross checked for its validity and reliability.

The reliability is a central concept in measurement. It basically means consistency of data. (Abate 2017). The study pilot survey started with survey made in different part of the city;(Adis Ketema, Dato Odahe, Referral area, Chefe area and DMC area). This was measured through continual checking of the data from primary sources until the repetitiveness and familiar data appeared. The validity was checked through cross checking and triangulation of the data.

## 2.8 Research design diagram

The research framework is designed as the following diagram.

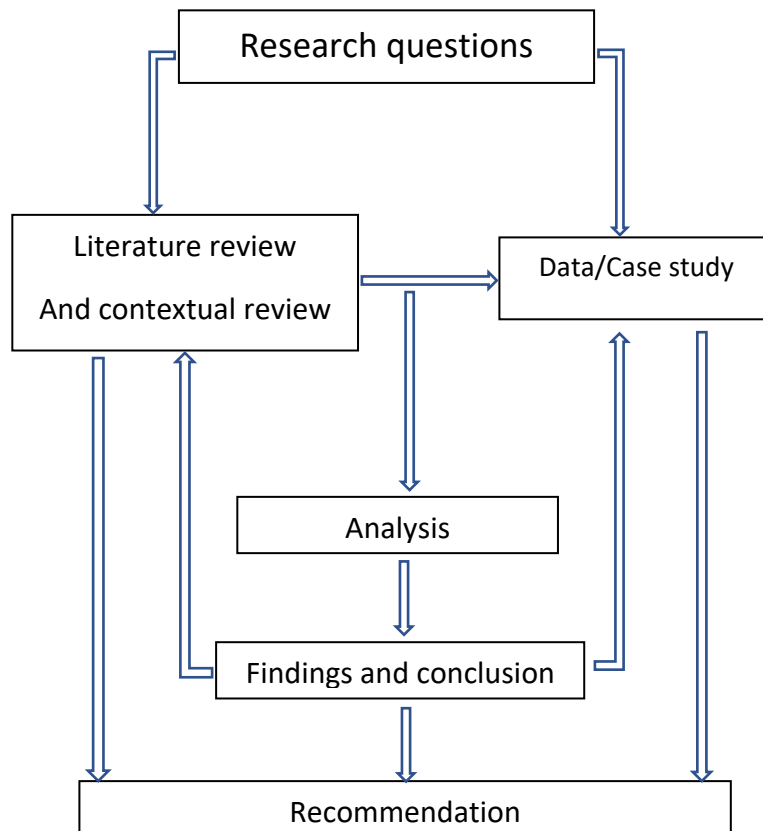


Fig 2.1 Research study framework diagram

## Chapter 3 Literature Review

### 3.1 Definition of Industrial park

The industrial park concept is not a novel one. In fact, it has been around for decades and has grown during the last twenty-five years (Bonde-Henriksen 1982). A study made in America by Industrial Development and Manufacturing Record, however, indicates that they have not evolved in a steady progression. Their emergence was motivated by concepts of regional policies and they were found in crisis areas of Great Britain in 1930s (Vidová1 2010). By 1960, there were already 46 industrial parks.

Industrial park is defined as a track of land set aside for industrial purpose under the private management and control of developers or investors. Typically, it includes many designated sites. (Bonde-Henriksen 1982) explains an industrial park as carefully planned, low-rise buildings located in a landscape setting of wide lawns, interconnected by broad boulevards. Generally, the property has all the characteristics of an ideal industrial site, including installed utilities, highly accessible highways and rail connections, and finished grading.

On the other hand, the Ethiopian Industrial Park proclamation (T. F. Ethiopia 2015) defines an industrial park as:

*“An area with distinct boundary designated by the appropriate organ to develop comprehensive, integrated, multiple or selected functions of industries, based on a planned fulfilment of infrastructure and various services such as road, electric power and water, one-stop shops and have special incentive schemes, with a broad view to achieving planned and systematic, development of industries, mitigation of impacts of pollution on environment and human being and development of urban centres, and includes special economic zones, technology parks, export processing zones, agro-processing zone, free trade zones and the like designated by the Investment Board”.*

### 3.2 Brief History of Industrial Parks

The cornerstone of industrial parks can be found in Great Britain, a country where factory production spread and the first industrial zones were founded. According to the journal by Jarmila Vidová, these were set up by multiple production units. The first factories arose somewhat accidentally. Their later occurrence, however, represents an organized deed that followed certain ideas of urban planning and regional concepts. The first industrial park, Trafford Park, was established by a company named Ship Canal and Docks near Manchester in 1896 (Vidová1 2010) .

The development of industrial parks underwent several steps of evolution. This progression is often described in terms of generations of industrial parks. The first generation of industrial parks which were built in 1970s, for instance, had different look compared to other generations. It was characterized by assembly halls and storages rather than simplistic architecture. The area of administrative buildings took just about 10-15% of the total area of the parks. In the period between 1975 to 1985, industrial parks were offices used by companies dealing with science, technologies and businesses, and they occupied a much larger space. On the contrary, the second-generation industrial park was characterized by a more challenging and complicated architecture. Furthermore, the third-generation industrial parks were built since the second half of 1980s. The characteristic features of this generation include: elastic use of an area and a wide portfolio of services, an increase in the number of administrative staff as well as the leasing out of more space for IT-related offices.

Coming closer to our time, the fourth generation of industrial parks which began to arise from the mid-1990s is characterized by administrative buildings and a wide portfolio of services. Companies located in the parks used high-end technologies, storage houses were usually located outside the park itself and there was an increase in the importance of recreational areas connected to the park that were used by people working in them. Since the second half of the 1990s, industrial parks have been an integral part of an international network of cooperating parks (Vidová1 2010) .

### 3.3 Socio-economic impact of industrial park

Studies of the experiences of countries in various continents reveal that industrial parks have played significant roles in changing the socio-economic status of the nations. In this section, we will present some of our literature findings.

Industrial parks attempt to accelerate the process of reforming the economy; the central institutions focus on supporting the use of technology to modernize the industry that would lead to the diversification of activities and achievement of sustainable industrial development (Meşter Liana-Eugenia n.d.). On the other hand, they usually face challenges in the market system, as the imperfection of the market of some institutional system from national and regional administration hampers companies' access to information, knowledge, new technology and financial resulting in increased business risk and directly affecting the progress towards achieving development goals. For their respective countries, industrial parks may be considered as a solution to overcome these problems in an attempt to accelerate the economic development by attracting innovative businesses that can generate jobs, higher incomes, therefore more resources to institutions. This aside, industrial parks can exploit the local potential in supporting knowledge-based business development and

outlines an environment where companies can interact with each other supporting knowledge suppliers, hence facilitating business and local development.

As an advantage pertinent to the national economy, industrial parks have concentration of various activities and services which can influence investors' decision to switch to regions. Successful industrial parks can, therefore, become centres of growth and innovation, supporting local development and boosting the national economy.

Yet other merits of industrial park development are enlisted below:

- It avoids joblessness by creating new job opportunities
- It improves local productivity and maintaining a competitive environment in the respective country.
- Producers operating in the parks get great benefits at lower costs.
- It brings concentration of investments.
- It grows productivity and competitiveness in both national and international markets; these will force for high efficiency and transformation.
- It is an important factor for any economy to actively participate in the global economic system.
- Through the industrial park development new technologies and innovations are transferred
- Industrial parks can provide a favourable environment for the development of concentrated firms but also for the local development.

Contrary to the aforementioned advantages, the development of industrial park has some demerits:

- If not managed successfully, it can affect the environment from its by-products.
- It could harm the health and security of the workers.

### 3.4 Definition of Housing

Housing is often regarded as one of the basic human needs. It ranks second after food and thereafter clothing. In different literatures, it is defined in terms of physical and social aspects. There are discussions on housing mainly with respect to its affordability, sustainability and liveability. To start with the dictionary meaning, the English Dictionary for Advanced Learners defines housing in two ways: (i) as the buildings in which people live and (ii) as the job of providing houses to people to live in.

In other scholar, the value of housing here was described from the residents' preference and choice to their economic status.

Housing is treated as a mass-produced consumer product, human use values must be substituted for material values. It also states that ; housing problems were defined as functions of mismatches between people's socio-economic and cultural situations and their housing processes and products; and as functions of the waste, misuse, or non-use of resources available for housing. It argues that housing should not be stated in terms of standards unit deficits, housing solutions can no longer be proposed in terms of unit production or productivity . (Turner 1976)

Furthermore, housing can be defined as a unit of the environment that has profound influences on the health, efficiency, social behaviour, satisfaction and general welfare of the community. It reflects the cultural, social and economic values of a society since it is the best physical and historical evidence of the civilization of a country (Omole 2010). Attributing to the World Health Organization (WHO), the same author describes housing as a residential environment which includes the physical structure used for shelter, all necessary services, facilities, equipment and devices needed or desired for the physical and mental health and social well-being of the family and individuals. Accordingly, housing is neither a mere shelter nor household facilities alone. It is an essential need that links such individuals and his family to the community in which s/he is involved in. Therefore, environmental amenities like waste disposal, water supply, road access and location services implied by the special links between necessary economic and social infrastructure like education, health and recreation are all parts of the package of services designated as housing (Omole 2010).

### 3.5 Parameters to study housing condition

Studies on housing condition use different parameters to evaluate the status of the housing. Housing condition is identified through physical and socio-economic study of the housing.

According to a study made in slum area (Omole 2010), housing condition was assessed with various components of the buildings; the building material, age of the building, structural condition of the house, level of household facilities and infrastructure available within the neighbourhood. In the study socio-economic data were presented with the following parameters: sex, age group, (>30, 10-20 and < 10 years old), marital status (Single, Married, widowed or separated), educational status (no formal education, primary, secondary or tertiary), income level and household size. And the housing, condition was studied through, building material types (wall, roofing and finishing material), age of the building (<10 years, 10-19, 20-29, 30-39 and >40 years) building materials listed (roofing and walling),

According to (Nor Rashidah Zainal\*, Gurmit Kaur, Nor 'Aisah Ahmad & Jamaliah Mhd. 2012) , low cost house in terms of the housing design, in Malaysia the minimum standard of built up are OF 550-660 square feet, two bedrooms, a living-room, a kitchen and bathroom.

And the physical aspect of the house (design, size, materials used) the surrounding areas (location, landscape, availability of public amenities and services) were listed in the housing condition study.

### 3.6 International workers office (ILO) Workers housing standard

The international labour office; has workers housing as part of employment contract meet different characters. It priory recommend the housing to be adequate and listed the standards the housing structure has to ensure; “structural safety, reasonable level of decency, hygiene and comfort”. The document has also listed the standards: “ a separate bed room for each workers, adequate head room, providing full and free movement, of less than 203 cm, minimum inside dimensions of a sleeping space should be at least 198 cm by 80 cm, beds should not be arranged in tiers of more than two, bedding materials should be reasonably comfortable, bedding and bed frame materials should be designed to deter vermin, separate accommodation of the sexes, adequate natural light during the day time and adequate artificial light, a reading lamp from each bed, adequate ventilation to ensure sufficient movement of air in all conditions of weather and climate, heating where appropriate, adequate supply of safe potable water adequate sanitation facilities, adequate drainage , adequate furniture for each worker to secure his or her belongings, common dining rooms, appropriately situated and furnished laundry facilities and finally lists reasonable access to telephone or other modes of communications, with and charges for the use of these services being reasonable amount, rest and recreation rooms and health facilities where not otherwise available.” (<https://www.ilo.org> n.d.)

### 3.7 Urban development and housing challenges of developing countries

Urbanization can be defined in different ways but from a literature it is defined as “a process of population concentration. It proceeds in two ways: the multiplication of points of concentration and the increase in size of points of concentration” by referring other source. In this section urban area is was explained from through demographically and functionally. The “demographic definition of urbanization is restricted to factors such as population size and density, the economic functional definition refers to the territorial concentration of productive activities (industries and service) rather than population.”” A population that is urban is one in which vast numbers of people are clustered together in very small areas called towns and cities.” (Tegenu 2010)

Looking at urbanization of developing countries, its growing fast for better economic development and this change crowd the urban spaces infrastructure and services. From the report by UN-HABITAT, over the next 25 years, over 2 billion people will add to the growing demand for housing,

water supply, sanitation and other urban infrastructure services. Closer to 3 billion people, or about 40% of the world's population by 2030, will need to have housing and basic infrastructure services. (UN-HABITAT 2005)

" Rapid urbanization in the developing world is the most unprecedented phenomena of the world's development in the past few decades. The pace of urbanization has exceeded many developing cities capacity to absorb the needs of a growing population, despite all innovations and efforts. One of the main pressing problems is to provide adequate housing for all, particularly for the poor. "" (HABITAT 2008)

Poor housing conditions are a global problem, but conditions are the worst in developing countries. Referring to the report of UN-HABITAT (2003), there are 1 billion people live in life-and health-threatening homes. This is said that it takes one third of the world urban population, while the developing world has a substantial proportion of the urban population living in inadequate housing condition. (HABITAT 2008)

The report also points out the challenges for housing and shelter, exists in a context of unprecedented global growth, the reality in most developing countries is said that there is widespread poverty and inequality in cities, with millions of people living in slums without adequate housing.

Adequate housing is defined from physical and economic aspects of housing. From the global report on human settlements (1996), some parameters to qualify adequacy of housing were identified. (U. N. UN-HABITAT 1996)

Accordingly, housing conditions study was made under four main aspects:

- The quality of housing-including its size relative to the number of inhabitants, the quality of construction and its extent of provision for water supply, electricity, sanitation and drainage
- Housing tenure- the proportion of house-holds who as legally recognized owners or renters, have protection against sudden or arbitrary eviction
- The quality of housing (relative to the number of the households)
- Housing accessibility – the proportion of people able to buy, rent or in the other ways obtain adequate quality housing, of special interest in this whether those with low income or those unable to earn an income (for instance the elderly) are to find adequate shelter.

According to the report on Latin America and Caribbean causes of inadequate housing, there are some points mentioned for the rise of inadequate housing. These are: (Duncan, Causes of Inadequate housing in Latin America and the Caribbean n.d.)

- Poverty, low household income and unemployment
- Problems in Access to land
- Housing supply constraints
- Urbanization/rural-urban migration
- Insecure land tenure
- Inefficient government policies or regulatory frameworks
- Displacement (planned eviction, natural disaster and war)
- Challenge of 'Access to housing finance'

As stated in the report by the Habitat III Issues Paper 20-Housing, (Barcelona Urban Thinkers Campus 2015) a number of conditions to consider shelter as “adequate housing” are listed. These elements

- **Security of tenure:** housing is not adequate if its occupants do not have a degree of tenure security which guarantees legal protection against forced evictions, harassment and other threats.
- **Availability of services, materials, facilities and infrastructure:** housing is not adequate if its occupants do not have safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage and refuse disposal.
- **Affordability:** housing is not adequate if its cost threatens or compromises the occupants' enjoyment of other human rights.
- **Habitability:** housing is not adequate if it does not guarantee physical safety or provide adequate space, as well as protection against the cold, damp, heat, rain, wind or other threats to health and structural hazards.
- **Accessibility:** housing is not adequate if the specific needs of disadvantaged and marginalized groups are not taken into account.
- **Location:** housing is not adequate if it is cut off from employment opportunities, health-care services, schools, childcare centres and other social facilities, or if located in polluted or dangerous areas.
- **Cultural adequacy:** housing is not adequate if it does not respect and take into account the expression of cultural identity.

### 3.8 Housing affordability

Housing affordability is defined differently; but broadly it is “the cost of housing services and shelter – both from renters and owner occupiers – relative to a given individual’s disposable income while there is no universal definition for this term, housing affordability can be hard to pin in practice, especially in terms of defining the appropriate geographic scope for housing markets suitable definitions of representative reference individuals and households, and their changing circumstances over time”

(Bieri 2012). Housing affordability consider; i) how much non-housing expenditure limited by how much is left after paying for housing or ii) in addition to 'income affordability', they distinguish between 'purchase affordability' (the ability to borrow funds to purchase a house).

Affordability is the ability to pay and choose to pay. There for Affordable housing does not force the household to spend beyond their capability and willingness. Here "Capability implies income; willingness alludes to choose " (Kamete 2001). Affordable housing is vary from one jurisdiction to another; it traditionally defined as housing cost (including rents, mortgages, property taxes and insurance, maintenance and basic utilities) no more than 30% of household income or budgets, (Kamete 2001) but some experts recommend including other costs. 'Affordability is an important indicator of access to housing especially by low income groups in developing world.

### 3.9 Industrial parks and housing challenge

Industrial housing: Industrial revolution in the 19<sup>th</sup> c mainly in Britain brought changes in the cities urban spatial plan and features. Some of the cities provides housing for industrial workers. The housing types that emerged in these areas appear to have set the pattern for the cellar dwellings, courts and back-to-back houses.

- **Case study of industrial housing: "Lancashire's back-to-backs, "**

The back-to-back house is one of the defining features of industrial towns during the 19th century. (Timmins 2013)

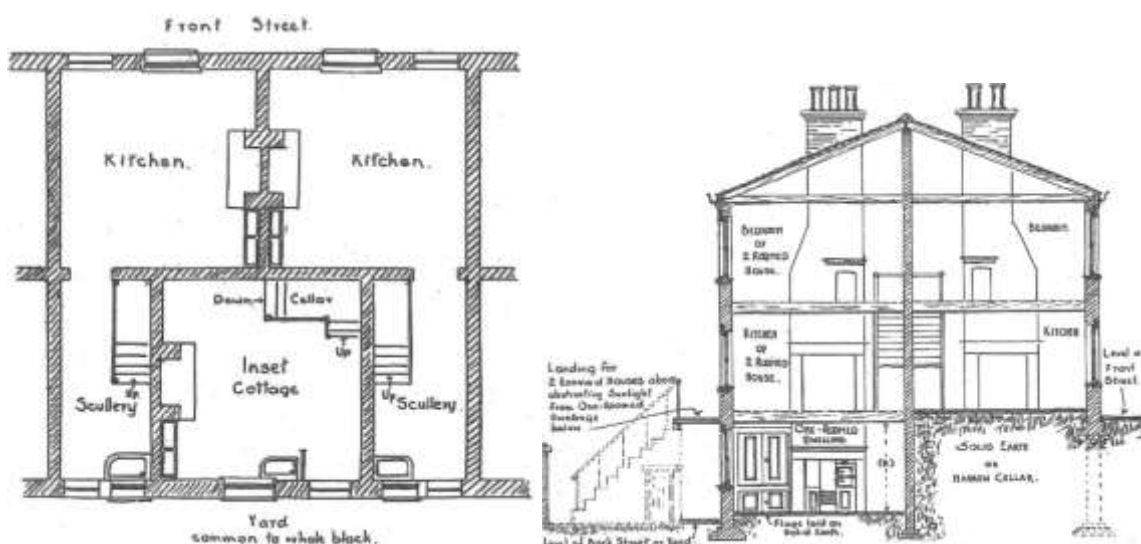


Fig.3.1 Plan and section of typical inset back-to-back houses

These housing types have been associated particularly, but not solely, with handloom weaving. In each of these towns, substantial numbers of cottages were erected that were equipped with cellar

loom shops projecting above ground-floor level in order to admit natural light. As typical example, at Preston, about 250 out of more than 1,000 handloom weavers' cottages built there were back to backs.

This housing types or cottages were single-fronted terraced dwellings, with two domestic rooms above the loom shop; the rooms of those were approximately 11ft<sup>2</sup>, occupying an area of 121ft<sup>2</sup> (11.2m<sup>2</sup>).

Other than in the major towns, the back-to-back houses in Lancashire on which historians have commented are associated mainly with factory workers, though short rows of back-to-backs provided with hand weavers' loom shops.

Affordable housing is vary from one jurisdiction to another; it traditionally defined as housing cost (including rents, mortgages, property taxes and insurance, maintenance and basic utilities) no more than 30% of household income or budgets.

(Kalugina 2016)

The block was built on a valley side that sloped down steeply from the main road onto which it fronted. For each pair of houses, it is suggested, the uppermost of the rear rooms belonged to the front house and the back-to- earth room to the rear house. Some natural light entered the back-to-earth room through a window well. With this configuration, each house had three rooms. Advantage arose by having two-storeyed rather than three-storeyed dwellings; the latter would have had the inconvenience of two stairways and the reduction in living space that resulted. (Timmins 2013)



*Fig 3.2. Typical back-to-back house features*

According to the book, (Timmins 2013) these houses were found in cheap rental house and their forms were explained as follows.

- Two-roomed, two-storeyed examples may have predominated, but more spacious and better-appointed types were also built
- In some cases, these were again two-storeyed, with a downstairs living room/kitchen and two bedrooms
- However, two-storeyed back-to-backs were sometimes contained within three-storeyed blocks, in effect creating interlocking dwellings, with back-to-earth cellar rooms being incorporated.
- Three-storeyed back-to-backs were also built, making use of attic space for bedrooms.

### 3.10 Best housing for industrial workers in Vietnam

A report on housing for employee, suggests that for mass number of workers whose incomes are low to afford better housing, there are some solutions. Accordingly, from many seminars and professionals have effort to find appropriate solutions. "Some solutions have been found, as re-planned residential area for employees associated with industrial zones, investors can lease land of State Own to build housing for rent, to develop the social housing with the rights and obligations for tenants, buyers ... Many other solutions are being further studied and proposed, such as to develop housing funds for employees, operating form the instalment purchase" (Lien n.d.)

Singapore and Hong Kong were reported as the two famous countries in solving of social housing for employees. These were made possible through, since the 1960s, Singapore has established the important institutions in planning and developing low-cost housing. Since 1960, Singapore has established Development Agency housing specialist in charge of land planning funds, construction and loans for buyers of low prices housing. They also established the Central Government Savings Funds, these funds are responsible for directing the organization of recruitment, which contribute 13% and employees contribute 20% of the monthly salary to the fund as a savings amount to buy houses. (Lien n.d.)

The housing had four essential ingredients:

- The importance of neighbourhood, (many urban professionals long suspected, that, in the quest for the design of inclusive and sustainable cities, the careful bottom-up design of neighbourhoods matters a lot!)
- The smart use of urban density, (carefully designing the height and proportion of buildings in relation to one another.)
- An integrated approach to housing—from planning and design, through land assembly and construction, to management and maintenance (the lead role across the housing value chain) and the final point was

- The housing had Long-term and strong political commitment. (The popular and political support for public housing in Singapore is strong and stable. And this has meant a high level of public subsidies to HDB this was S\$1.19 billion) (JHA 2018)

## Chapter 4 - Contextual review

### 4.1 About Ethiopia

Ethiopia is located at the crossroads between Africa, Asia and Europe (located in North -East of Africa). Ethiopia is one of the oldest independent nation on the planet. The country is linked with six countries. Ethiopia has a land size of 1,140,330 km<sup>2</sup> (435,186 sq miles). Ethiopia is the largest land-locked country situated in the horn of Africa. In addition, it is the second-most populous country in the Sub-Sahara Africa.

It is the second most populated nation in Africa with population of 94 million (2015 est), and 13<sup>th</sup> in the world. The young and productive age accounts for 60% of the population. Ethiopia is considered as a gate way to Africa as it is a seat for AU, ECA and many international organization: the political capital for Africa.

Ethiopian is a federal democratic republic composed of 9 National Regional states which are based on ethnic territories: These are Afar region, Amhara region, Benishangul-Gumuz region, Gambela region, Harari region, Oromia region, Tigray region, Somali region and Southern Nations nationalities and Peoples' region, and two Administrative states (Addis Ababa city administration and Dire Dawa city council). (U. Ethiopia 2016)



Fig 4.1 Location of Hawassa city

## 4.2 Ethiopia Economy

According to the report by UNICEF Ethiopia, "Ethiopia has experienced strong and broad-based economic growth since 2004. The growth performance during the GTP I period was built on the fast and sustained growth achieved during the preceding 7 years. As a result, real GDP growth during the last 12 years averaged 10.8 percent per annum " (U. Ethiopia 2016). The report also listed some of the economic achievements, some are

- Ethiopia's continued vulnerability to climatic and other external shocks, including those related to global prices and inflation has compromised its efforts to reduce poverty. The country's overreaching development goal premiant the eradication of poverty through "broad-based, accelerated and sustainable economic growth" that is also inclusive and equitable. After rising to average of 10 % in 2015, inflation is likely to decline moderately in 2016, to 8.1 %.
- The current five-years development plan, the Growth and Transformation plan II (GTP II), has objective to sustain the accelerated growth and establish a spring board for economic structural transformation and thereby realizing the national vision of becoming a lower middle-income country by 2025.

Ethiopia has the fastest growing economy with annual average GDP growth rate is 11% for the last 12 years as according to the report. (GAROMSA 2016)

## 4.3 Historical background of industry sector in Ethiopia

According to the literature by MOI, manufacturing industry in Ethiopia begun in the 1950 's much earlier than the Sub-Saharan African countries while modern industries began to emerge in the second half of the 1950's aiming at substituting imports. The early 1970's introduced a central planning system of economic management. (Industry 2013)

By the early 1970's, Ethiopia's industrialization policy included a range of fiscal incentives, direct government investment and equity participation in private enterprises. The government's policy attracted considerable foreign investment to industrial section. For instance, in 1971/72 the share of foreign capital in manufacturing industries amounted to 41 percent of the total paid-up capital and many foreign enterprises operated as private limited companies, usually as a branch or subsidiary of multinational corporations. The Dutch had a major investment (close to 80 percent) in the sugar industry while Italian and Japanese investors participated in textiles; and Greeks maintained an interest in shoes and beverages. Italian investors also worked in building, construction and agricultural industries. (Industry 2013)

#### 4.4 GTP II and industrial sector

Ethiopian growth and transformation plan (GTP) is a five-year plan for different sectors and it has been working since 2010/11 – 2014/15 as GTP I and GTP II is for 2016/17 to 2019/20 GC.

Objective of GTP II “...becoming a low middle-income country by 2025, through sustaining the rapid, broad based and inclusive economic growth, which accelerates economic transformation and the journey towards the country’s Renascence.” (Source: GTP II English version)

As one of the major departure of GTP II, “...emphasis will also be given to the development of export oriented manufacturing industry, with the objective of transforming the structure of the economy to enable the country to achieve the vision ...”. As part of the strategy for bringing economic development in Ethiopia, Industrial parks are developing in different regional towns with high job opportunity bring mass migration and need strategy to accommodate the migrants.

From the report of Ethiopian Investment commission (EIC) incentive report on IP, With the vision to make Ethiopia a leading manufacturing hub in Africa by 2025, the government places high focus on industrial park development and expansion. IPs are developed with open investment area for the private sector (domestic and FDI) located along key economic corridors, connected to ports by road and electric-powered railways lines with close proximity to high labour force pool.

The IPD is anchored on the principles of:

- Specialized Parks: enhancing economy of scale and efficiency through the development of specialized/clustered industrial parks;
- Export Promotion: government provision of industrial park incentives targeted at increased export performance and competitiveness;
- Sustainability: maintaining high environmental standards through the use of renewable energy and zero liquid discharge (ZLD) technology;
- Vertical Integration: enhancing forward and backward linkages in the economy; and
- Skills development and competitiveness: developing workers’ skills for enterprise competitiveness.

(Industrial parks in Ethiopia incentive package 2017).

The report listed out twelve (12) IPs in different parts of the country and the most of them are described their specialities of production and areas they cover as follows.

- **Adama Industrial Park:** (Cluster/ Specialization: Textile & apparel, Footwear, Machinery fabrication: Area: 10 million m2)
- **Arerti IP:** (Cluster/ Specialization: Building materials & furniture: (Area: 1mill m2)
- **Bole Lemi Industrial Park (I and II):** *Cluster/ Specialization:* Textile and apparel, leather and leather products: (**Area:** 3.5 million m2)
- **Debre Berhan IP** (Cluster/ Specialization: Agro-processing) (Area: 10 million m2)
- **Dire Dawa IP:** (Cluster/ Specialization: Open for multiple sectors, focused on export as it is the closest to port Djibouti ort Djibouti :(Area: 10 million m2)
- **Hawassa IP-Eco-Industrial park** (Cluster/ Specialization: Textile & apparel; (Area: 1.4 million m2 (Phase 1))
- **Kilinto IP** (*Cluster/ Specialization:* Pharmaceuticals: (**Area:** 2.8 million m2)
- **Kombolcha IP:** (Cluster/ Specialization: Textile & apparel, Footwear & Leather products: (Area: 10 million m2).
- **Mekelle IP:** (*Cluster/ Specialization:* Textile & apparel, Footwear & Leather products : (**Area:** 10 million m2)



Fig 4.2 Location of Industrial parks in Ethiopia

Source: EIC IP incentive Report

#### 4.5 urbanization in Ethiopia/ Ethiopian housing strategy

From the report by Minister of urban development and housing, MoUDH, (Ethiopia is undergoing rapid and dramatic urbanisation. The urban population is growing at over 5% a year, primarily driven by migration to urban areas, which is likely to accelerate as economic opportunities in cities continue to expand, and by the rise of new urban settlements. As elsewhere in emerging countries, migrants to urban areas are attracted by the prospect of securing paid employment and by expectations of improved health care, housing and education, which can be found in cities.

Of the total population of Ethiopia in 2015 (some 90 million), roughly 18 million, or 20%, are living in urban settlements. By 2025, this number is expected to reach 30 million (roughly 27% of a total population of 112 million). By 2035 the urban population will be around 49 million (some 37% of the 133 million total population). This means that the urban population of Ethiopia will increase between 2015 and 2035 by some 31 million, and that the urban population increase accounts for nearly 75% of the total population increase of 43 million during this period. Ethiopia is fast becoming an urbanised society) (Ethiopian Urban Development Housing 2015)

Ethiopian minister of urban development and construction has set a strategy for urban housing in the country. Accordingly, there are 'four main strategies in housing development;

- 'To guide the government intervention and participation of stakeholders in the sector,
- To Integrate and coordinate efforts to enable access to housing by the poor and mid income level households.
- To Integrate the sector with employment creation.
- To encourage saving and arrange financial schemes " in addition to the strategies, the ministry defined support package and scheme for the housing sector through Free land supply, Taxation, Technical support, establish saving schemes, loan arrangement and Undertake Capacity building. (construction 2013)

The ministry office has shown that housing development is not totally address by the government but needs integration of employers with the employee, and encourages saving and financial scheme for the sector development. As industrial park development brings higher number of population to a city, it need to integrate housing in the industries development.

#### 4.6 History and development of 'Hawassa' city

'Hawassa' city is located in the southern part of Ethiopia in the Southern Nations, Nationalities and People's Regional state. Located at a distance of 275 km from Addis Ababa, it is bounded by Lake Hawassa on the West and north-west, Chelelaka swampy area on the east and south-east, 'Tikur

Weha' river on the north and 'Alamura' mountain on the south. Its astronomic location is 07°03' north latitude and 30°29' east longitude.

Hawassa is a young city (just 56 years old) established with a good master plan. It is considered as one of the well-developed cities in Ethiopia with a remarkable progress in the socio-economic development with an integrated effort that involves government bodies, residents and various organizations in the city and abroad. It is a beautiful city frequented by visitors from all around the country and beyond.

Hawassa has progressively developed to Municipality level in accordance with proclamation number 51/2002 SNNPRS in May 20,1995 E.C. Since then, the municipality has been led by mayor, accountable to the regional government. The city currently consists of eight (8) sub cities and 32 villages/kebeles each having its own administration office: Misrak sub city, Menhariya sub city, Tabor sub city, Mehal Ketema sub city, Haik Dar sub city, Addis Ketema sub city, Bahel Adarash sub city and Hawella Tulla sub city. The city administration categorized the sub cities and kebeles into two groups as: Hawassa town (Misrak, Menharia, Tabor, Mehal Ketema, Haik Dar, Addis Ketema, Bahil Adarash and Tulla town (Kebele 01) )and Hawassa city rural (the rest kebeles in Hawella Tula sub city). (www.hawassaonline.com 2018)

No.	Sub-Cities	Kebele
1	Misrak	1. Tesso 2. Wukero
2	Menhariya	1. Guwe Stadium 2. Millennium Adebsabay 3. Piassa
3	Tabor	1. Dume 2. Fara Bariso 3. Hiteta 4. Hogane wacho 5. Tite
4	Mehal Ketema	1. Addis Ababa 2. Leku 3. Niget Kokeb
5	Hayek Dar	1. Gudumale 2. Gebeya Dar
6	Addis Ketema	1. Daka 2. Philadelphia
7	Bahil Adarash	1. Adare 2. Andinet 3. Harer
8	Hawella – Tulla	1. Alamura 2. Chefasine 3. Chefe Kotjabesa 4. Dato Odahe 5. Finchawa 6. Gara Rikata 7. Gemeto Galle 8. Haranfama 9. Hawella Wondo 10. Tulla 01 11. Tulla Rural 12. Tullo

Table 4.1 Hawassa city Administration Sub cities and Kebeles ; Source (Eshetu n.d.)

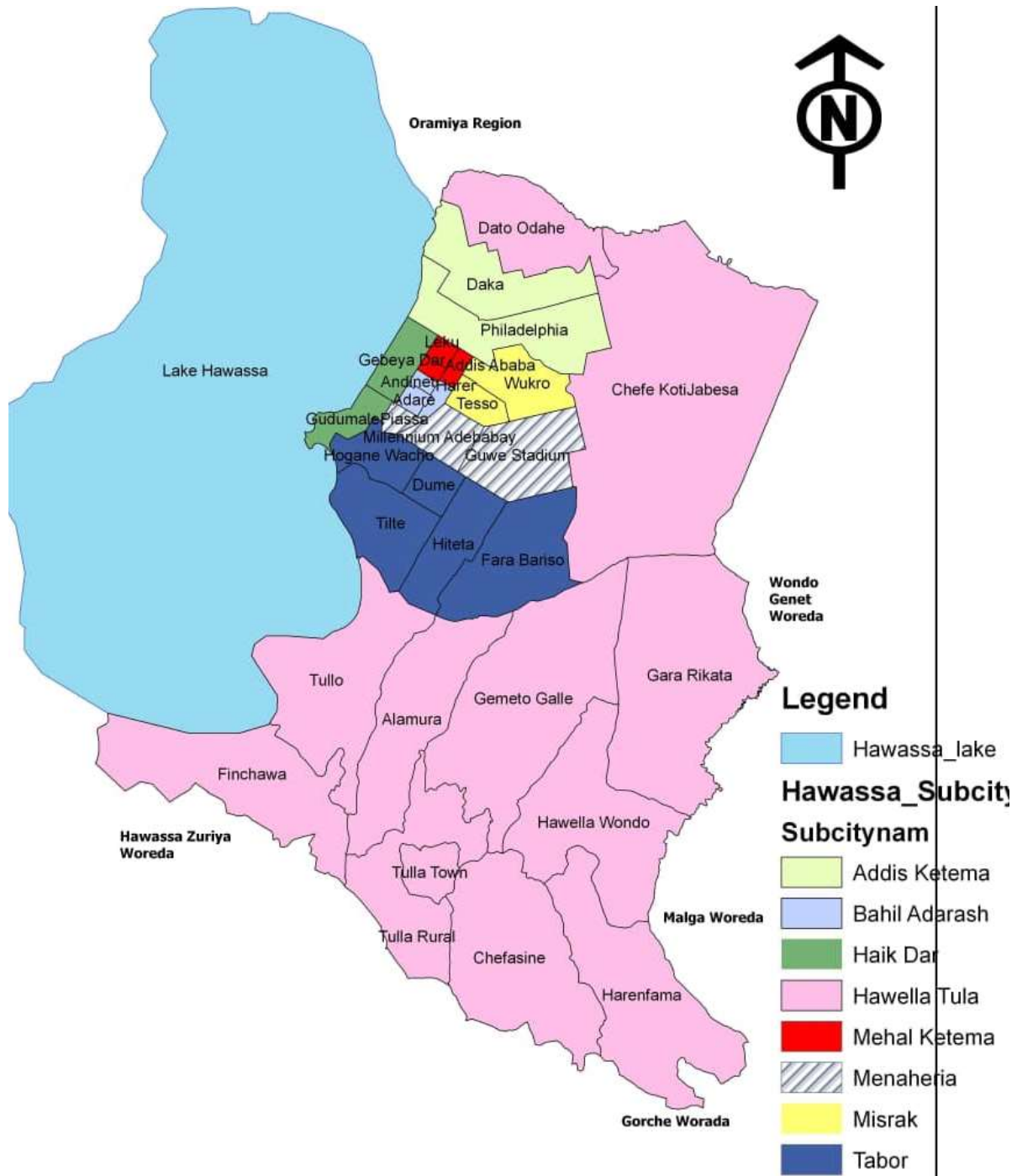


Fig 4.3 Hawassa city and the sub cites

#### 4.7 SNNPR Government urban housing provision policy and strategy

CSA last report of 2007 shows that SNNPR has population (15.04 million) with 2.9 growth rate and large rural area population. The state rank as second (having same growth rate to Oromia state) after Gambella state which had 4.1 growth rate. From the total population of the state region, 89.7% population lives in rural area. Of this rural population 25.6 % (3.5 million) are under the age group from 15 to 29. (census 2008) .

The housing status of the state region, according to the manual prepared by SNNPR Housing development and administration office, states that the two main problems identified in urban housing development and administration of the region are,

- The imbalance between housing supply and demand
- Existence of high number of old houses and substandard houses

There causes of the problems were said:

- Rise of urban population
- Shortage of finance for housing development
- Low amount in preparation and provision of serviced land
- Low level of integrated infrastructure development
- Lack of construction resource provision and technology
- Less number of investors in housing development
- Not having modern land and land related resource registration
- Lack of strength in forming responsible institutionalized housing sector
- Poor strength in governmental housing administration
- No regulatory framework related to housing development and administration

The policy and strategy drafted by the SSNPR regional government in vision to see built affordable housing in regional towns with standard, serviced infrastructure housing which are for the community of different economic status,

The housing policy states the strategy to house different level of income group society especially for the low income: these strategies are

- 1- Housing construction by government mobilization (IHDP)
- 2- Housing development by the private sectors (real estate,)
- 3- Cooperative housing
- 4- Housing development by government and private integration
- 5- Housing by interest and finance of Institutions (developmental institutions and enterprises)
- 6- Other housing development options

#### 4.8 Housing options in 'Hawassa' city

From the data of official in Hawassa city housing development and administration unit, there are different housing options in the city which most are implemented and very few under plan:

- Government induced housing (10/90, 20/80 and 40/60)

- Cooperative housing: (Currently delivered: 950 HH)
- Private housing development (lease)
- Real estate development (Currently two real estate are active with 21 HH and 24 HH)
- Private institutions housing for their employees
- Government with collaboration with institutions
- Governmental rental housing ("Kebele" house): 3826 HH
- Housing for inner city relocated community (Total in different sites: 880 HH)
- Condominium housing: 3538 HH in the city
- IPD related housing on wider private plot, service quarter rental houses (536 rooms)
- Governmental employee housing
- Teachers housing

#### 4.9 'Hawassa' industrial park

Hawassa industrial park was inaugurated in June 2016 GC. It was developed and supported by the Ethiopian federal government specialized in textile and garment production. Its full operation kicked off in February 2017, and now it has been 16 months ever since.

The park is developed under the national Industrial Park Development Corporation (IPDC) covering a total area of 300 hectare; the current developed area is 1.4 million M<sup>2</sup>. The number of employees (as of this research) is 12,600 of which 10,000 works as machinery operators. These operators come through a selection process conducted in seven zonal offices/stations in SNNPR.

A recent report from Intercept has investigated some of the prevailing issues and concerns over HIP (<http://www.Intercept.com>). This happens to be the only investigative report we could find on the park. The essence of the report is presented below as it has direct relevance to this thesis.

Ethiopia has set its eyes toward becoming a lower-middle-income country by 2025. In this regard, it hopes to become a new hub for production of fast fashion. The establishment of the HIP is a small yet pivotal leap towards reaching the goal. The HIP is a makeover of the garment industry hosting popular apparel companies like PVH (home to famous brands such as Calvin Klein, Tommy Hilfiger, H&M, JC Pen, etc). The park is praised for its structural elements including well-ventilated sheds, paved roads (17 miles), the treatment plan that recycles 90% of the water. This is in contrast with the case in countries like Bangladesh.

"The grass is always greener on the other side" they say. Though HIP looks rosy on the outside, it has a different story on close inspection. First, the wage the workers are paid is poverty wage. The international poverty line is \$1.9 a day, about \$57 a month. The factory operators are paid less than a

dollar a day (about 750 birr a month = \$27). To put this in global perspective, the average monthly salary of garment workers in Sri Lanka is \$66, \$136-\$175 in Vietnam, \$78-\$136 in India and \$170 in Cambodia. Consequently, the minimum wage has forced some of the workers to rely on supplementary money from their families to sustain them in the month, to live in rooms of minimal facilities (e.g. bare, concrete rooms, four people sharing two thin mattresses on the floor). As a result, many workers don't see the job prospect as a long-term career opportunity. On the top of low pay, the workers also complain of mistreatment/aggressiveness of the expat managers. In response to the complaints, the managers often justify the low pay with either the inclusion of some benefits/extras such as monthly food allowance or low productivity with the promise that the wage would increase after productivity increases. In the garment sector worldwide, according to the report, it is far from a given that increased productivity actually leads to wage increases.

Furthermore, the report also included safety-related concerns some of the workers (especially women) shared. The workers often live far from the park because they could not afford closer housing. This has forced them (particularly the night-shift workers) to walk for up to 30 minutes into the interior and pitch-black part of the city. This in turn has resulted in incidents such as rapes and psychological effects due to jeering and verbal abuse while walking the scary dark corners. As a result, some companies made changes including the provision of transportation facility (but up to paved roads only) and changes in the work shift.

The housing-related findings too merit a brief discussion. Stakeholders such as investors and the government expect that the park will open job opportunities for 60,000 employees, just a quarter of them have been housed. Due to the increased demands, this has resulted in a hike in housing prices. The government initial strategy to address this was to integrate workers into the life of the city by housing them among the population through the introduction of a microcredit scheme. In this arrangement, a loan would be given to local families to cover 85% of the cost of building a small room for rental in their respective compounds. An unforeseen challenge of this scheme is that once a worker suddenly quits and returns to family (which is a frequent incident), the burden of paying the whole rental amount rests on the shoulders of the rest of roommate(s). Cases such as locking the worker until the corresponding employer intervened are not new stories. A potential strategy to address the housing problem could be building dormitories for workers but this brings the notion that the concerned stakeholders (e.g. the government, employers) be responsible for the workers, a risk they seem not to take in order to avoid any blame.

The park has some implications to the city residents too. Some residents who had expected an economic boost when the workers moved in are not happy with the contradictory reality since these

workers are paid very less. In fact, they complain that the cost of living has gone up for local residents as a result. Moreover, some (particularly farmers) are threatened by the quest for farm land grabbing in the name of expansion of the park. It has instilled the fear of losing land for this purpose. Although the government pays compensation money for this, farmers voice that the money is not as sustainable as the land.

#### 4.9 A) Employment process of the operation workers in HIP

HIP employs operation workers through the 'Human resource' (HR) who is responsible to communicate with different companies in the industrial park and facilitate the process. There will be vacancies post announce for operation worker's in different parts and inform the seven zonal 'trade and industries office; Halaba zone, Hadya zone, Kembata zone Gedeo zone, Gurage zone, Sldama zone and Wolayta zones.) in SNNPR to register applicants. According to the study, all workers are expected to come from SNNPR region. Some workers heard about vacancy through friends who already are working in HIP. . According to the data from one of the regional office, Gedeo Zone, the selection process starts by registration and filling forms (Annex 5). Applicants screening mainly check for visual disability or hand and leg with no disability. And all applicants are female between 18 to 35 age group.

As described by Gedeo Zone trade and industry office, there are clusters to register applicants in the six 'weredas' and the two cities administrations in Gedeo zone. These registered applicants are sent to the zone office usually weekly or as convenient. After the lists came to the Zonal office, they then will fill the forms here. They will be selected and sent for paper and practical exam in HIP on Tuesdays, where the IP has schedule the day for Gedio zone applicants. At the time of the exam, official from the zonal office bring the registered candidate to Hawassa and facilitate the process to get employed. When they are employed, the human resource (HR) in HIP facilitate housing of there are vacant rental rooms to be assigned. If there is no vacant room, they will stay temporary with friends of family for a while and then search for rental housing in the city. Then the selected one will remain in Hawassa and the officials who brought them will get back after facilitating the process. The newly employed workers usually stay, at least the first month, with friends or relatives if any.

The entry point to the city usually are relatives, family of friends who takes them in in the first place. They may come directly to the HIP job or some comes earlier in search for job from different part of the country, especially SNNPR seven Zonal offices.

The operation workers, working hours has two shifts: from morning 6:00 AM to 2PM and from 2PM to 11 PM. The workers get to the service station before an hour from the work shift starting time.

These getting into work and coming from hours are insecure and has many times exposed them to thieves and burglars. The only day off is on Sundays.

#### 4.10 Housing scheme for Hawassa Industrial park workers

In Ethiopia, Industrial park development corporation, IPDC, is responsible in developing and managing industrial parks which are found in different parts of the country. IPDC when starting HIP, started with housing strategy to develop housing in privately owned compounds in 'Adis Ketema' sub city through building service quarters in the compound with 3M by 4M size rooms. These rooms were planned to accommodate 4 workers per room.

From the different sources of collected data sources, mainly from data from Sidama micro finance institution official (SMFI), The IPD related housing was developed only in one sub city, Adis Ketema sub city and started by the initiation of IPDC with the collaboration of SMFI. IPDC loan 24 million birr to SMFI and let to administer the credit given to build service quarter in privately owned plot residents in Adis Ketema Sub city which is closer to the Hawassa industrial park. The housing scheme participant were 170 HH with in "Adis Ketema" sub city in two kebeles; Daka and Philadelphia. There were sixty-seven (67) women and one hundred and three (103) men registered for the housing scheme.

Number of units in each Kebele	Kebele	Number of units	Percent
	Daka	144	84.71%
	Philadelphia	26	15.29%
		170	

Table 4.2 Kebeles of built housing in "Adis Ketema" sub city

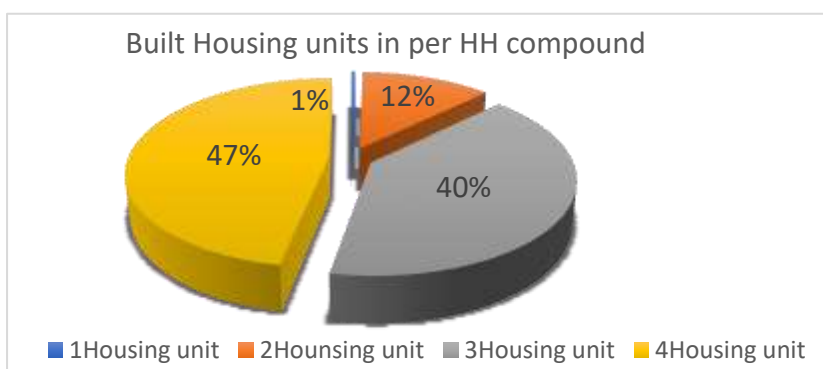


Fig 4.4 Built housing units per HH compound

SMFI was found in Dec 1994 GC, started as women's development association from Irish fund for 'Sidama development program'. On 1996 GC it changed to national organizational structure change by legal proc.40/1999. it was legalised in 1998 GC.

From one of the services of the institution (Credit and Saving), rental house building loan (IP worker's housing), there were 536 service quarters build in the sub city.

Number of Built Housing unit (HU) per compound	Number of HH involved in the type of HU	Total HU	Percentage
1	2	2	0.37%
2	33	66	12.31%
3	72	216	40.30%
4	63	252	47.01%
	<b>170</b>	<b>536</b>	<b>100.00%</b>

*Table 4.3 IP induced housing profile in "Adis Ketema" sub city*

The housing scheme for the IPD started on June 2016 GC by an agreement between, Hawassa Industrial park, Hawassa city administration and SMFI initiated by IPDC. The objective of the agreement was to share the housing demand induced by industrial park development; (In five years 60,000 IP workers will be employed)

There were 170 private house owners got the credit from June 2016 to July 2017 GC Total number of housing units built are 536; The grace period for the credit was three months. The credit was planned to be returned in three to five years' time. They agreed to build from one to four housing units per compound and one housing unit is rented for four industrial park works. Among these; 480 now rented for IP workers, 48 rented for other residents and the rest 8 housing units are under construction.

The loan from branch SMFI office in "Adis Ketema" sub city was made ready for the residents, under the following nine requirements: (1) Request letter by the private house owners, (2) Bring a collateral of site plan, (3) Support letter from 'Kebele', (4) Marriage certificate, (5) Four 3x4 size photos, (6) Initial saving – 6 % of the required amount of money, (7) Service charge – 3%, (8) Pass book for married couples of 15 birr and (9) Registration fee of 30 birr. But if the credit amount is above 75,000 ETB; They ought to get the credit from the head office of SMFI.

The credit given was 34,000 ETB for each room, and to the maximum of 136,000 birr for HH building 4 rooms in their compound. This preference was made by the interest of land owners.

#### 4.11 Future housing scheme plan for HIP

The IPDC has plan to develop housing for HIP workers who are planned to rise to 60,000 employees in five years. According to the information from the IPDC official Hip was inaugurated on June 2016 GC, off the total area of 300 hectares, the current working area is 140 hectares. They have planned to develop housing project in the area which covers 29 hectares.

There are three housing schemes which are planned by the IPDC for the coming five years.

- i. Immediate solution – With the collaboration of SMFI
- ii. Intermediate scheme – This is planes to develop pilot dormitories with 936 housing units per block. In the building of this dormitories, there are 2 phases

PHASE -1 – will be implemented on 2 ha area (6 dormitory blocks), the housing typologies are dormitory with studio type and 'transitional rooms' type. This includes studio and 1 bed rm.

Each block will have 18 housing units per floor and 72 units per block. The ground floor is let for shops, dinning, kitchen and transitional rooms (6 housing units, which are provided for a family types)

PHASE -2 Is to be implemented on 72 hectares.

These intermediate housing scheme is planned to take 5 months for each block and for all 6 blocks, the project would take 1 year to be completed

Currently, it is on bid process.

- iii. - Long term plan housing scheme with city hall. land is already reserved in HIP compound.

#### 4.11 Summary of the literature review

One of the housing problem in cities comes from population migrating to urban spaces in search for job. Industries development takes a good share in creating migration to urban areas.

Ethiopia, as one of the developing country planned for economic development to be lower middle-income country by 2025. Industrial parks as a recent development takes different forms and are said efficient way to manage energy and infrastructure and transform better the economy of a country.

In the other hand the economic opportunity of industrial parks need attention to balance the social and infrastructures tension created in the city they exist or to areas nearby. From the basic human needs shelter/housing is important issue that creates load on cities with industrial area.

Histories shows how cities where industries are developed or proximate experiences workers accommodation challenges. Different strategies for housing includes, rental houses or dormitories provided by the industries or the government.

Ethiopia as developing country set plan to “becoming a low middle-income country by 2025” and as one of the strategy to develop the economy, Industrial parks have been developed in different regions of the country. IP development attracts foreign investors and great job opportunity for the citizens. These mass number of employees of IP came to the city from mostly rural areas and are challenged to get used to the city life and get accommodation. Most of the challenges are related to housing facility.

Hawassa IP operation workers housing study shows that there are very few housing (2000 workers accommodation of 10,000) by the industry as a starting point. There are three housing schemes which are planned to be developed in the coming five years. Until that the workers live in various parts of the city where they find less house rent and closer to the transport line.

The working hours has been great challenge as it is too early (5PM) to get in and the second shift to late (11 AM) to get home. This made it insecure as different crimes are happening.

The work place, time or shifts and residential services has to be coordinated in order to alleviate the challenges.

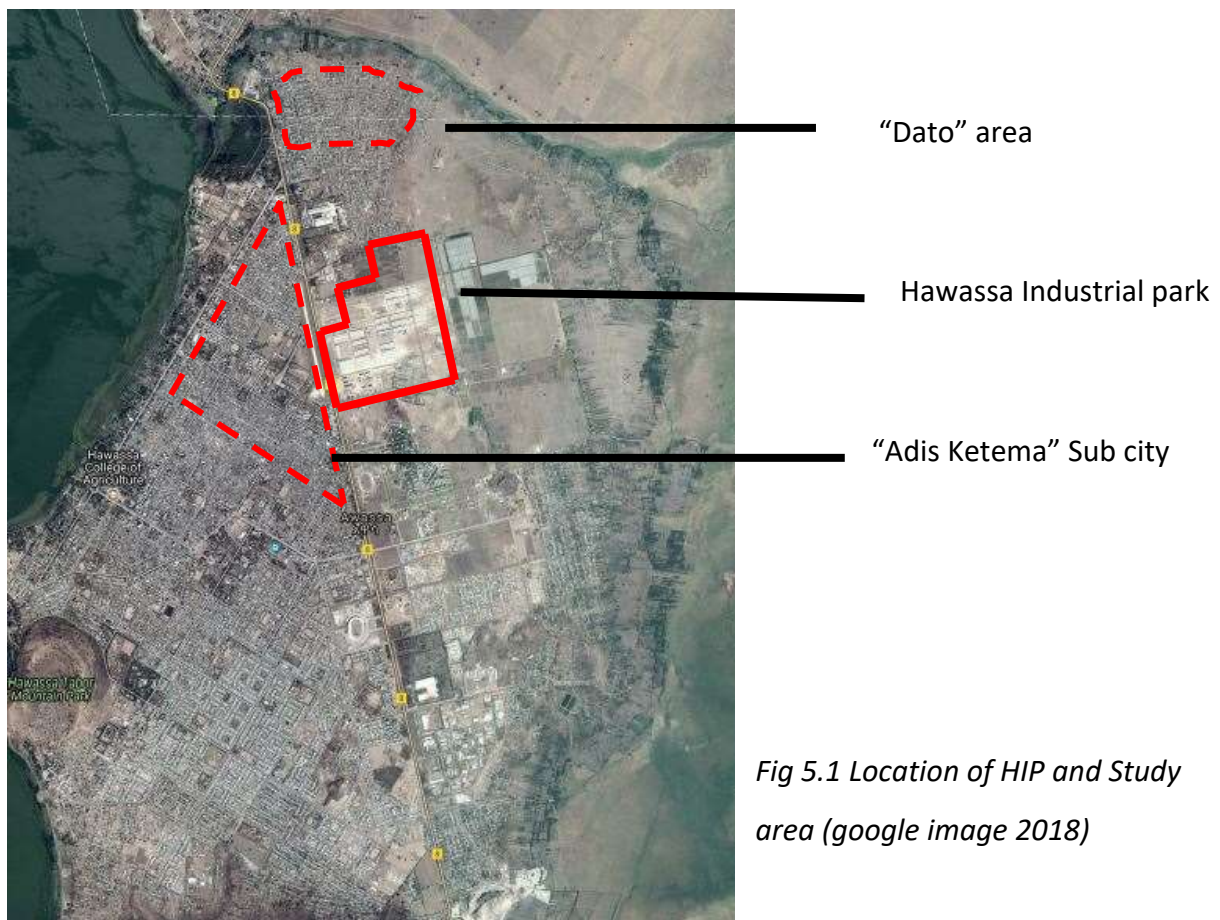
## Chapter 5 - Data presentation and data analysis

### 5.1 Introduction

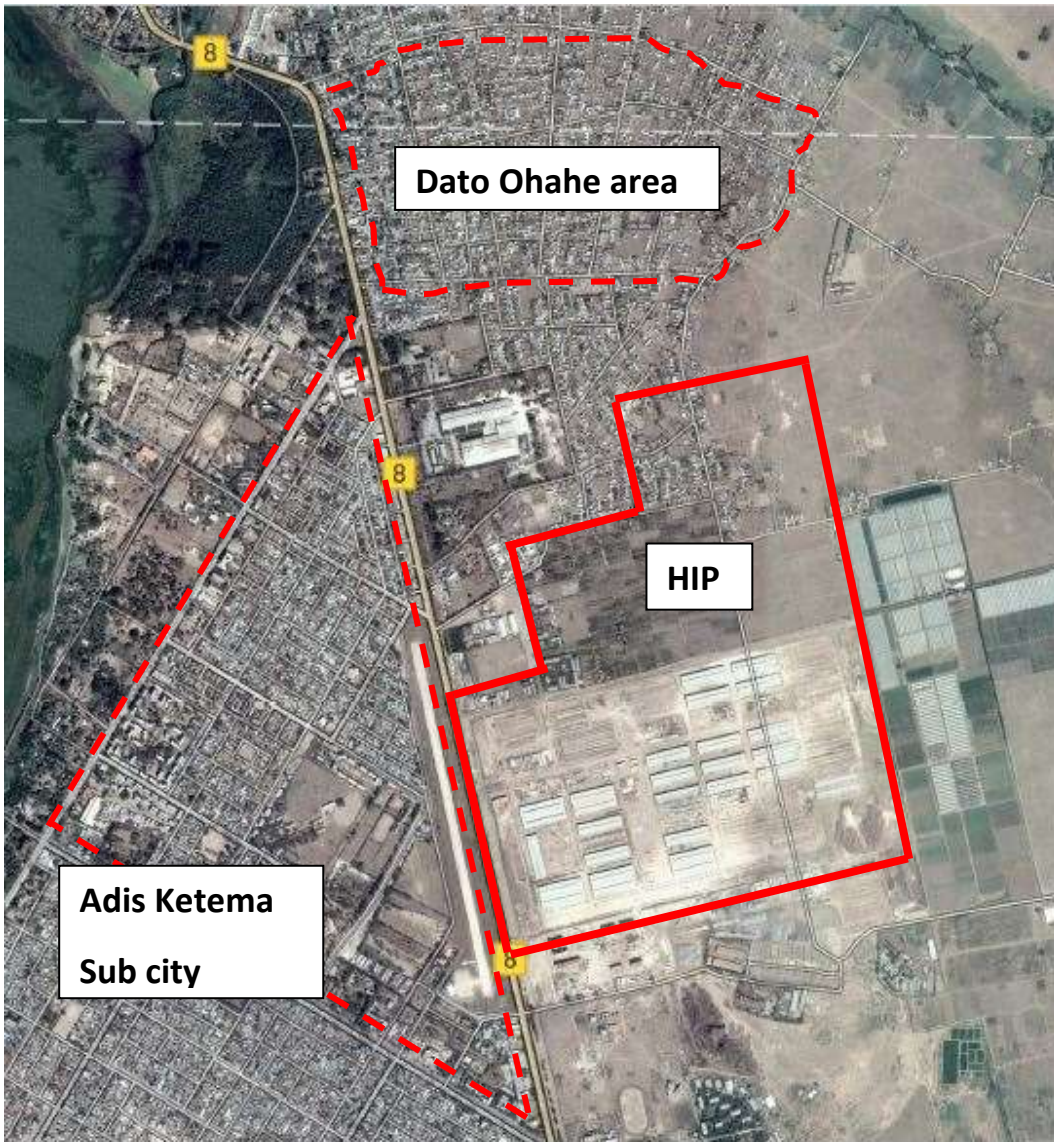
Here under this chapter the empirical data collected through observations, discussions, interviews and questionnaire of three different types (Annex 01) are presented. As it is stated in the methodology of this report primary data were collected from interviewees of IP operation workers, rental house owners, key officials of Hawassa city, one zonal (Gedeo zone) office, regional and federal offices. In the primary data collection, especially a more in-depth interview was conducted with IP workers and Hawassa city officials. Under the interview of key informants, in general, questions were structures in a way to extract the information needed to deeply understand the case and answer the questions.

The study was made in Hawassa city, two selected area where the respondents residing. Namely, 'Adis Ketema" sub city and 'Hawalle Tula 'sub city "Dato Odahe" area.

The data collected through the interview are presented in the following table. It shows three general data types: the socio-economic data of the study group, the housing condition of the study and the housing aspiration of the respondents to the problems identified.



*Fig 5.1 Location of HIP and Study area (google image 2018)*



*Fig 5.2 Study area location*

## 5.2 Socio-economic data collected

The data collected from the respondents (Hawassa industrial park workers and house renters) are summarized in the following tables and graphs.

<b>Socio-economic data</b>	<b>Categories</b>	<b>IP workers (Of 50 workers)</b>	<b>Percentage</b>	<b>House renters (5 HH)</b>	<b>Percent age</b>
<b>Sex</b>	Male	8	16 %	3	60 %
	Female	42	84 %	2	40 %
<b>Age group</b>	16-19	10	20 %	0	0
	20-27	34	68 %	0	0
	28-35	6	12 %	1	20 %
	>35	0	0	4	80 %
<b>Marital status</b>	Single	43	86 %	0	0%
	Married	7	14%	5	100%
<b>Educational status</b>	Below 10 <sup>th</sup> grade	2	4 %	1	20%
	10 <sup>th</sup> complete	33	66 %	1	20%
	10+ college	15	30 %	1	20%
	BA Degree	0	0 %	2	40%
<b>Monthly Income</b>	Below 1000 birr	27	54 %	0	0
	1000- 3000 birr	23	46 %	0	0
	3001-6000 birr	0	0%	3	60 %
	> 6001 birr	0	0 %	2	40%
<b>Social interaction</b>	Idir	0	0%	5	100%
	'Equb'	21	42%	3	54%
	Other	11	22%	2	46%
	None	18	32%	0	0%

*Table 5.1 Socio-economic data of the respondents (IP Workers and House renter)*

The respondents stress on the imbalance of their salary with the working hours.

From the socio-economic study of the research, the IP workers has listed safety and security issues either in work place or in the neighbourhood they live in.

<b>Data</b>	<b>Questions asked</b>	<b>IP workers responses</b>	<b>Frequency (of 50 cases)</b>	<b>Percentage</b>
	Has any crime been committed against you	Yes	32	64 %
		No	18	36 %

<b>Safety and security</b>	List of crimes	Robbery	24	75%
		Physical attack	6	19%
		Other	2	6%
	Is there a safety issue at your work place?	Yes	38	76%
		No	12	24%
	What are the safety issues at your work place	Chemicals smell of the garment	11	29%
		Heat of the shade	18	47%
		The garment fiber 'kire'	9	24%
	What Health problem are you facing	Kidney infection and gastric sickness from long hours standing and working	50	

*Table 5.2 Safety and security issues of the respondents (IP Workers)*

### 5.3 Case one - HIP Induced housing condition (in Adis Ketema sub city)

This section discusses about the housing condition of Adis Ketema sub city.

There were twenty-five respondents studied from fourteen compounds. The houses were rental houses which were owned privately. The rental service quarters all are rented by four workers in a room. This area is called 01 or 'Selase' area by the residents.

Adis Ketema sub city is one of the older sub city in Hawassa. It has regular street patterns and paved asphalt main roads (From IP to SOS village) and other cobble stone streets in the neighbourhoods. It is among well services areas in the city. Taxi stations for the residents of the sub city is proximate: They use 'bajaj' locally called three-wheel drive and other mini bus taxis for transportation.

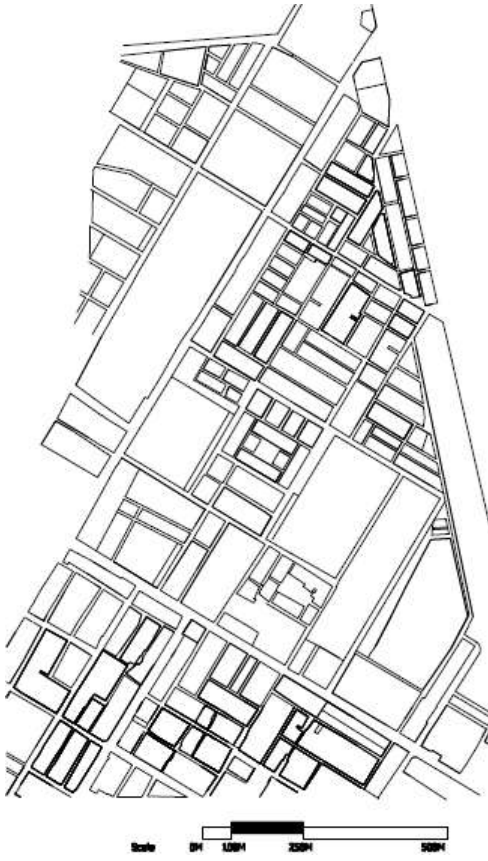


Fig. 5.3 Street pattern of 'Addis Ketema area'



Fig 5.4 Picture of Adis Ketema street

The figure ground shows that the area has legible patterns of the built structures. These has relater with the regular street patterns.

Fig 5.5 Figure ground of 'Addis Ketema'



The sample of the study were taken purposive random selected, which are the rental houses of built for HIP workers. A compound may have a maximum of four rooms built to two rooms to the minimum, from a compound there one to three interviewees carried out.

Fig. 5.6 Location of studied housing in 'Addis Ketema" area

As IPDC housing scheme for the IP worker's, the IP induced housing was built in 'Adis Ketema' sub city which has five hundred thirty-six (536) rooms were built for the workers Each room were 3M by 4M: 12 m<sup>2</sup> area. To rent these houses, the HR in HIP facilitate following if vacant rooms are available, the workers can get the house sharing with four workers (a room is planned to accommodate four residents) Rent price is fixed to be 1000 ETB per month sharing the rent to four person each pay 250 ETB.

The rooms are constructed since 2015 and finished from six months to a year time. The building materials used were similar in all the compounds; Walls were HCB with paint finish, floors with cement screed, roof CIS with fabric ceiling, the doors and windows were metal frames with glazing.

The housing built for the IP workers are described from different parameters to explain the physical condition of the houses and the services to it. The housing study describes the services in the compound and in the neighbourhood as follows; light source, cooking energy use, sanitary services and waste disposal mechanisms of the IP workers in 'Adis Ketema' subcity, which was only survey of IP induced housing cases in the sub city.

Data	Parameter studied	No. of respondent (of 25)	Percentage
<b>Electric power</b>	Hydroelectric power	25	100%
<b>Cooking</b>	Charcoal- 16/30	14	
	Electric and charcoal 14/30	9	
	Pit latrine	25	100 %
<b>Toilet</b>	None		
	Indoor – Self contained	0	
<b>Bathroom facilities</b>	Shared	10	40%
	Not available	15	60%
<b>Kitchen facilities</b>	Shared	5	20%
	Outdoor – open courtyard	17	68%
	Not available – (in rental room)	3	12%
<b>Water supply</b>	Pipe water - Shared	21	84%
	Underground water	4	16%
<b>Waste Disposal facilities</b>	Open space	8	32%
	Door to door collection	3	12%
	Incarcerating/burning	14	56%

Table 5.3 Physical infrastructures Housing of IP workers in 'Adis Ketema' sub city

	<b>Building material</b>	<b>Remark</b>
<b>Roof</b>	<i>CIS</i>	
<b>Door and Windows</b>	<i>Metal frame with glass glazing</i>	<i>Has same size for all rooms</i>
<b>Floor finish</b>	<i>Cement screed</i>	<i>Fine texture</i>
<b>Wall material</b>	<i>Plastered and painted inside HCB wall with rough finish outside wall</i>	<i>Outer wall with no painting</i>

*Table 5.4. Building materials of the housing in 'Adis Ketema' area*



*Fig 5.7 IP induced rental housing in 'Addis Ketema' sub city*

### Life story 1: Miss Hiwet Worku

Miss Hiwet was born in 'Aleta Wendo' to the souther part of Hawassa: in Sidama Zone. She came to Hawassa for the IP job when hearing the announcement in her area by the governmental officials. She remembered when she came to Hawassa ; December 2018 GC ; with her father escorted her when she first came. Her father is school teacher and her mother is a 10th grade complete house wife. Hiwet is the first born to her family in five children. She has three sisters and one brother who lives in Aleta wendo with her parents.

Hiwet has been working in HIP for six months now and as she said 'the salary we herad was 650 ETB but now I get 1200 ETB and 100 ETB additional for overtime work. 'she says she is happy so far.

When she first came to Hawassa, she stayed around 'Alito' area with some friends' rental house. But they moved out to 'Addis Ketema' 01 areas for it is closer to HIP and from her friends' suggestion. But she uttered that 'the house rent was 500 ETB, we share for three but now it becomes 600ETB. They increased 100 ETB after two months. "The house is in very poor construction material and has no floor finish or proper wall finish.

'It's very difficult to live in this house but we're waiting for better salary and upgrade the job' The difficult thing she said she has found working in HIP is the work times. 'The work shift starts early morning at 6:30AM. But we wake up at 5:00 Am cook for breakfast and lunch and pack some lunch. She said 'we get to work in the shade. It is very big 700 or more workers are in there. We work with follow ups. Sometimes the supervisors controlling is hard, they punish late comers. Or if we move out to toilet and stayed a bit longer they come knocking the toilet doors. They are annoying "said when telling how her work place experiences were. But she is fine with the hardship in work place because she likes living in Hawassa.

Hiwet also said she want to stay in Hawassa for a longer time in HIP; at least for three years. And then wants to move to other better job in the city. And she says" My parents encourage me a lot especially my father advised me to work hard and learn to live in city. He wants me to get better and win the situations. That is the reason why I am staying here. I want to get in to school and upgrade. Want to have my diploma and then degree. Living in cities has many opportunities to bet better in education and better job.

When Hiwet talked about her housing area condition "As you can see it has very bad quality. We

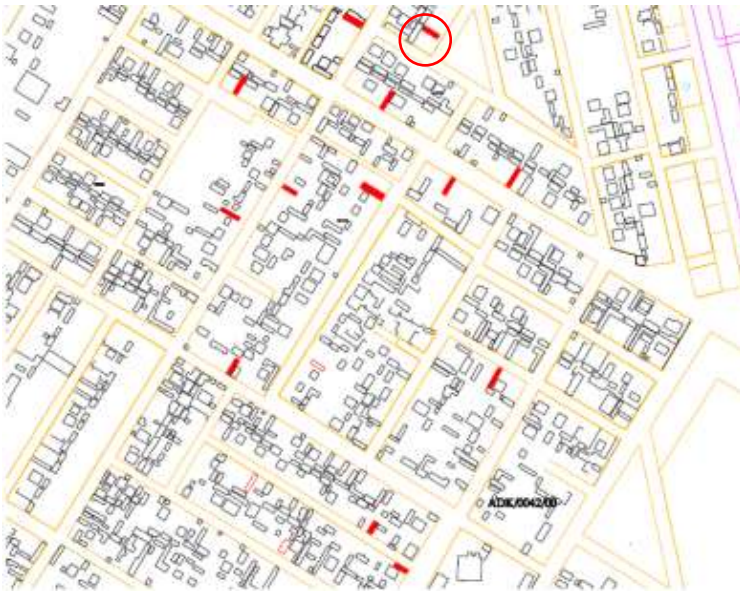
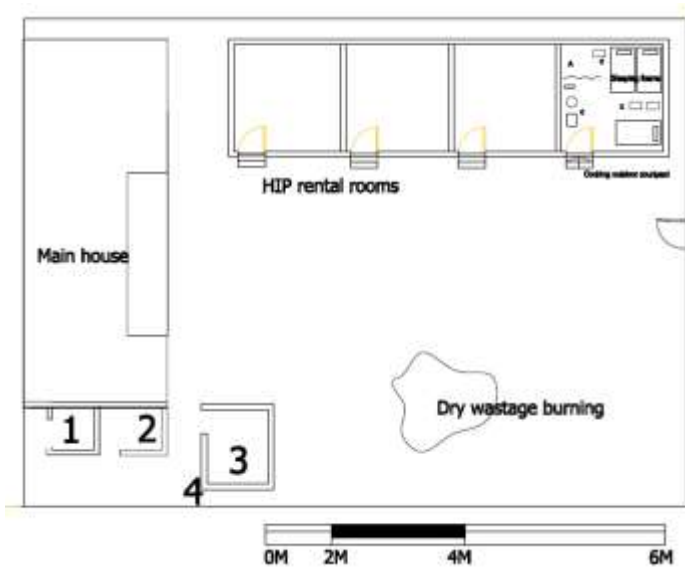


Fig5.8 Location of compound studied

Fig 5.9 The compound pictures



**Legend**

- 1.Shower
- 2.Toilet
- 3.Traditional kitchen
- 4. Waste collection area

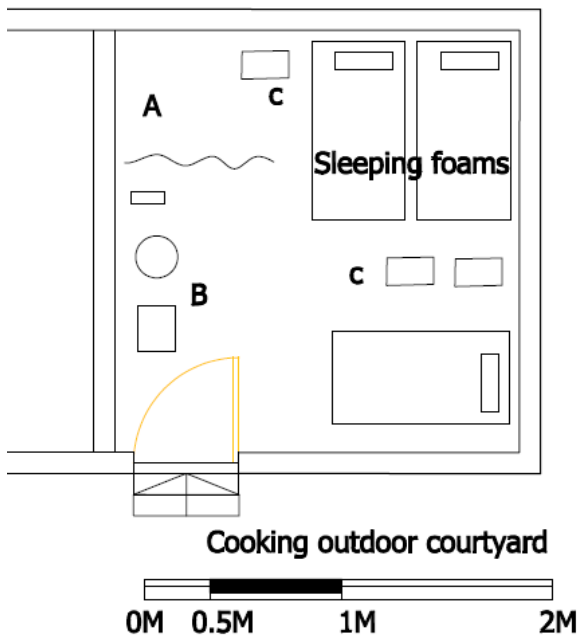
Fig 5.10 The studied compound in 'Adis Ketema'



Fig5.11 (Left)  
Traditional kitchen and  
waste collection area



Fig 5.12 (Right) Toilet



**Legend**

A-Food storage

B- Sitting stools

C- Luggage

Fig.5.13 Floor plan of HIP rental house



Fig 5.14 HIP rental room interior pictures

5.4 Case -Two: Housing condition study of the IP workers in 'Dato Odahe' area

One of the study carried out area was Dato area which is found in 'Hawalle Tula 'sub city in Hawassa. There are twelve kebeles in the sub city; and designated as 'Hawassa city rural area' It is recently developed area to legalized ownership. The area has few taxi stations and irregular street patterns.

High number of IP operator workers live in this area. They live by sharing a room for two to four workers to reside together. The study shows that this area is preferred by the workers for its low rental price and its proximity to the HIP. The infrastructure of streets has low quality and has less paved streets. At summer time when it is rainy, it is mud and difficult to access the sites.

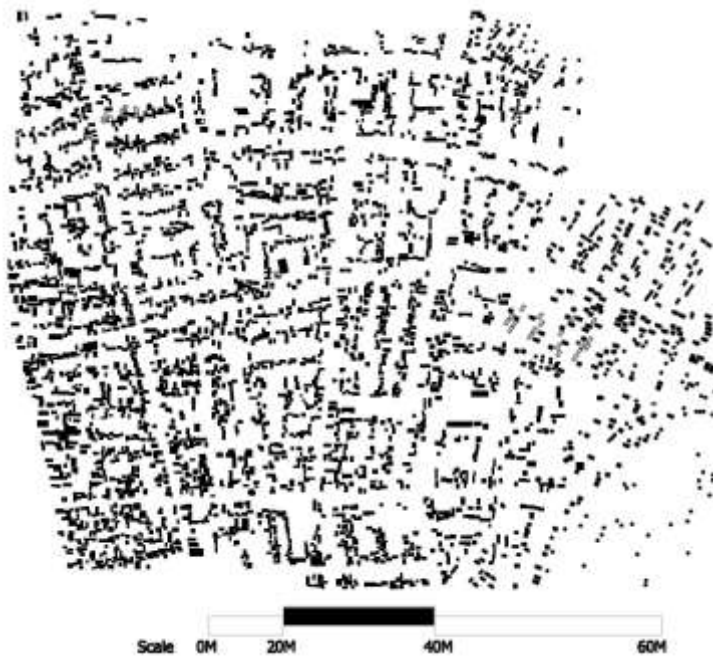
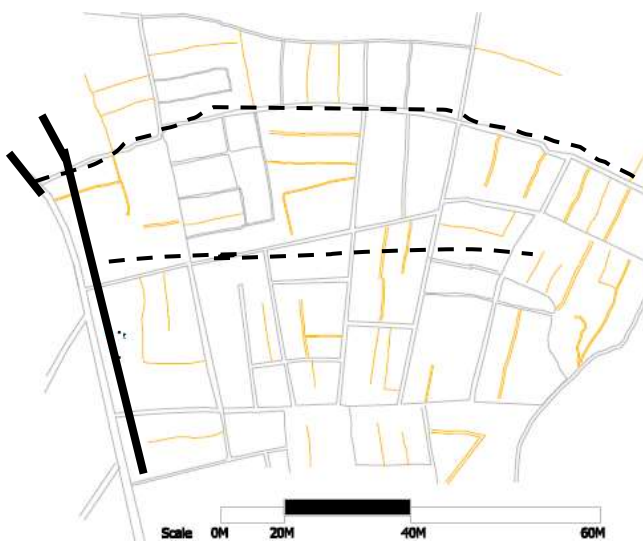


FIG 5.15 – Figure ground of 'Dato Odahe' study area



The streets are irregular and not paved well. Some local roads have dead ends and have various block sizes. There are two main roads where the HIP service bus pass on.

- HIP Service bus line
- Highway

FIG 5.16 Street pattern of 'Dato' study area



The rental houses have different qualities. The housing conditions were studied with the following parameters.

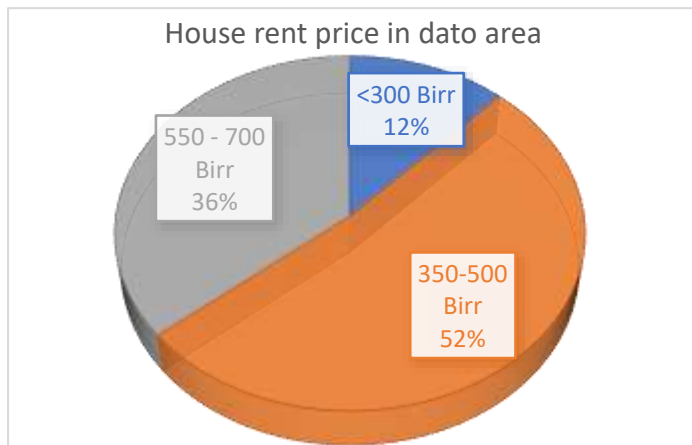
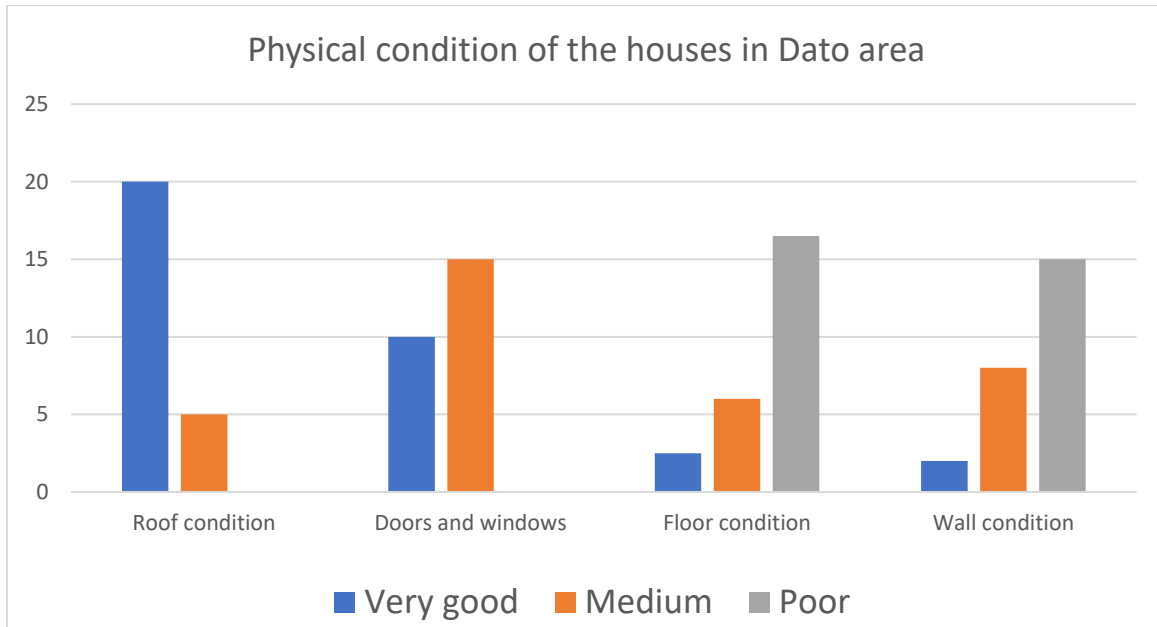


Fig 5.18 Rental prices in “Dato area”

The physical condition of the housing was studied classifying to roof, wall, floor and door and windows building materials. All the roof materials were CIS, but older and new condition were evaluated. The wall material was all with mud and thatch traditional construction technique. But some were plastered with concrete and painted; which were categorized as good wall quality. The one categorized under medium wall quality has; plastered concrete wall with no painting finish. The

poor wall quality has no plastering of concrete but only mud and thatch plaster with fine texture finish with the same material. For the door and windows evaluation, the doors and windows with metal frame and glazed are grouped as good condition while the other group are for doors and windows with wooden local product with lower cost are said to be medium quality.



*Fig 5.19 Physical condition of the housing in "Dato area"*

The housing study shows that services in the compound and in the neighbourhood as follows described light source, cooking energy use, sanitary services and waste disposal mechanisms of the IP workers in 'Adis Ketema' subcity, which was only survey of IP induced housing cases in the sub city.

Data	Parameter studied	No. of respondent (of 25)	Percentage
<b>Electric power</b>	Hydroelectric power	25	100%
	Charcoal	11	45%
<b>Cooking</b>	Electric and charcoal	6	24%
	Wood and charcoal	8	32%
<b>Toilet</b>	Pit latrine	25	100 %
	None		0
<b>Bathroom facilities</b>	Indoor – Self contained	0	0
	Shared	5	25%
<b>Kitchen facilities</b>	Not available	20	75%
	Shared	5	20%
<b>Water supply</b>	Outdoor – open courtyard	8	32%
	Not available – (in rental room)	12	48%
<b>Waste Disposal facilities</b>	Pipe water - Shared	13	52%
	Underground water	4	16%
	'Bono' water – communal water	8	32%
<b>Waste Disposal facilities</b>	Open space	12	48%
	Door to door collection	3	12%
<b>Waste Disposal facilities</b>	Incarcerating/burning	10	40%

Table 5.5 Physical infrastructures Housing of IP workers in 'Dato' area





Fig. 5.20 'Dato Odahe' are rental houses pictures

### Life story 2: Miss Amanesh Arba "Dato Wefcho sefer" area

*Amanesh Arba is 22 years old women who was born and raised in rural area from a farmer father and a house wife mother. She came from Wolaita Zone "Dugna fango wereda " "'Anka damot' Kebele. She is the second among six children for the family with two brothers and three younger sisters. The first child for her parent is a farmer, and the second brother help his parents at home (age 17).*

*Amanesh says " I came to Hawassa in 2014 GC around June. My friends usually talk about going out from our rural area to cities. After completing TVET 10+2 class education I was losing hope to be employed. I was at home with no job. I had friends who earlier came to Hawassa and suggested that 'instead of staying in rural area without job, you should come, there are jobs here'. When I first came she said ' I stayed with my aunt for almost three weeks. But I didn't want to be burden for my aunt so I moved out to my friends' rental house" When she first came to Hawassa four years back, her first employment job started working in Hawassa garment industry (which is old company) She worked there for about two years.*

*She now lives with her roommate Abebech. But before this house she lived in O1 areas (IP rental housing) for a month and then left the house. She said she left the house because of the roommates she lived with whom she did not know, some steal things from each other. She heard about 'Dato' area that the house rent is lower and moved to area renting the current house with her friend with 500 ETB. Even though the rent share is the same with O1 house, she said ' I prefer to live with my friend and some items we find here easily and with low prices. "Gulit" (small local markets) are in the neighbourhoods.". The rent price increase 100 ETB after three months for no reason.*

*She joined HIP in August 2017 with the help of her friends. She so far, worked in two companies in HIP. She stayed for three months in the first company and changed to the current company for 9 months now. When she talks about her job in HIP, she said 'the salary is 900 ETB. It is*

not enough, but I need money to sustain in anyway.' 'Even if I have a saving account but couldn't deposit no money so far'. She says most of the expenditure is on food. And they pay 600 ETB for house rent. "I am staying to work in HIP, hoping to get things better. some informal information comes, they say the salary rises with work experience. So am waiting for better salary.' She said when she explains how much interested to be working in HIP.

Every day at the industrial park work place was narrated by Amanesh "I wake up every day at 5AM and cook and ready myself. At 6Am I have to get to the service station so I get out from home around 5:45 AM. The transport are not patient to wait us. so, we all get on time. work in starts at 7AM and we work until lunch time 12PM. We have an hour lunch break. We have to get back at 1 PM. We then work until 3PM and get out with the service transport. "

"working standing for longer hours are very difficult, most workers get sick. Some even faint on the floor and taken out to refresh. This happens because the shed is very hot and workers don't eat enough food.as they get earl morning. And the supervisors are very harsh, shouting and some demoralize us "as she said. Her only day off is Sunday, on this day it's family time and socialize. They spend most hours of the day at home.

Amanesh finally suggested that the salary to be increased soon and the working hours or shifts to be modified for safety issues. Most workers want to move out because of this and also are moving out to work in different places informally and daily labour works.

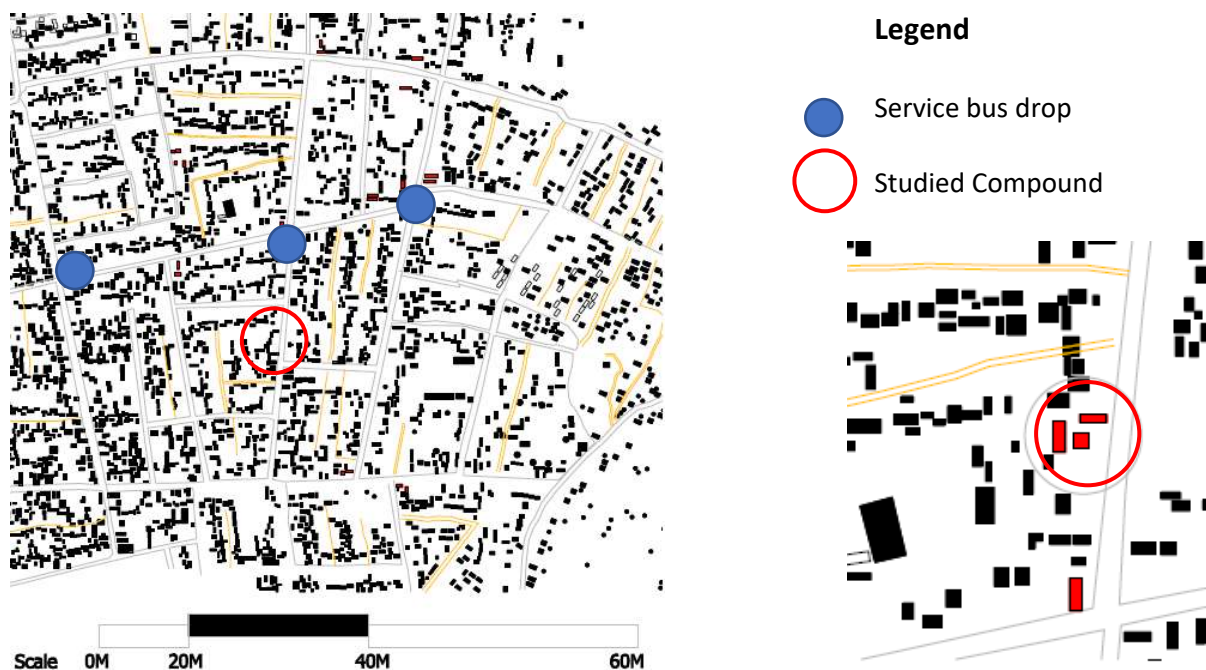


Fig.5.21 Location of sample compound study

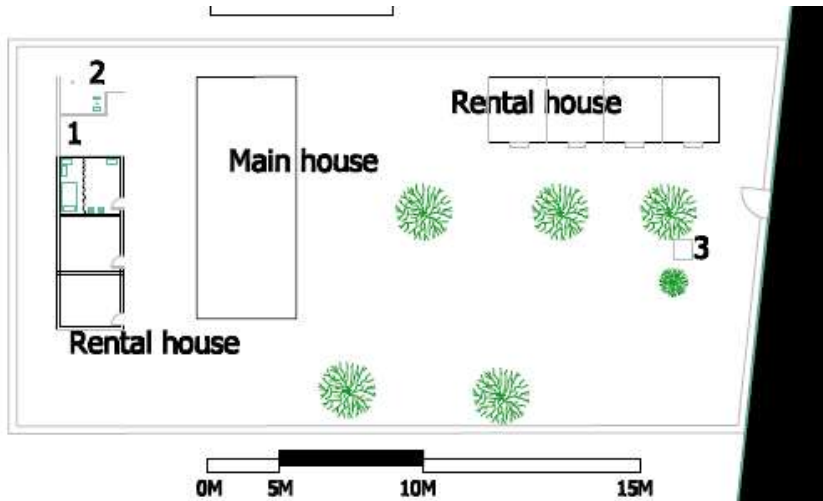


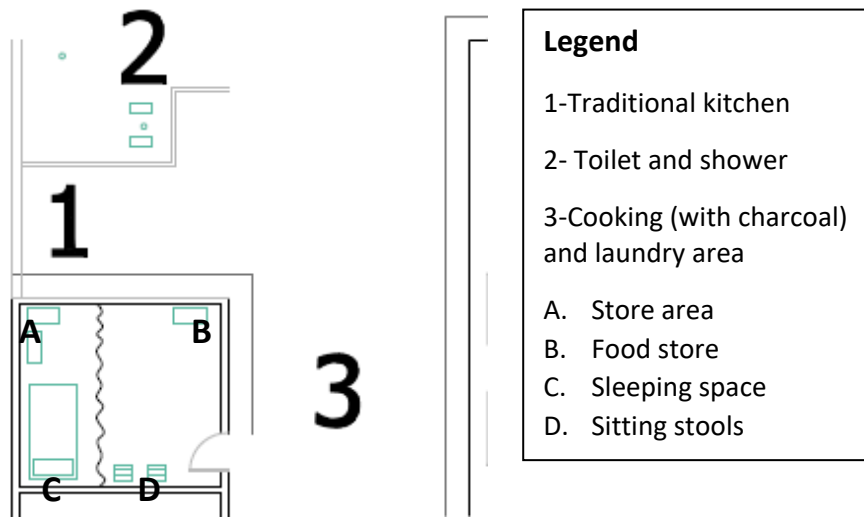
Fig.5.22 The compound studied

**Legend**

- 1- Traditional kitchen
- 2- Toilet and shower
- 3- Tap water



Fig. 5.23 Amanesh house compound



**Legend**

- 1-Traditional kitchen
- 2- Toilet and shower
- 3-Cooking (with charcoal) and laundry area
- A. Store area
- B. Food store
- C. Sleeping space
- D. Sitting stools



Fig.5.24 Amanesh house

Fig. 5.25 Toilet ans shower space



Fig.5.26  
(Right) Sleeping and sitting space (C and D)

Fig. 5.27 (Left) Storage spaces (A and B)



### 5.5 Comparison of the two study sites

As one of qualitative data analysis, interpretation of the collected data to meaningful or symbolic contents of the study were used to induce the data to some concept.

The data collected and presented target to answer the three research questions: i.e to identify the housing condition, socio-economic impact and the final purpose was in order to suggest how to address the housing problem. Accordingly, the analysis interprets the data to these three contents.

### 5.6 The housing condition analysis

Under this, the housing services, physical conditions and the socio-economic impact of the housing in the two studies sites are presented in comparison.

The physical services identified were, electric power supply, toilet facility cooking energy sources, water supply, bathroom service and waste disposal system.

The physical condition of the houses are to be presented by evaluating the building structures: roof, walls, doors and windows and floor, material status. And then the socio-economic impact of the housing conditions will be discussed with the following three sub sections.

#### I- Physical infrastructures

In both study site the source of light were electric power and all housing in both sites had toilet proviso. Other status of the physical infrastructures was compared as follows.

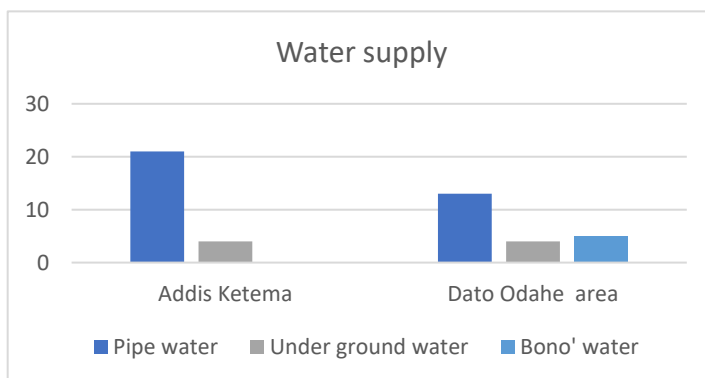


Fig 5.28 Water supply comparison

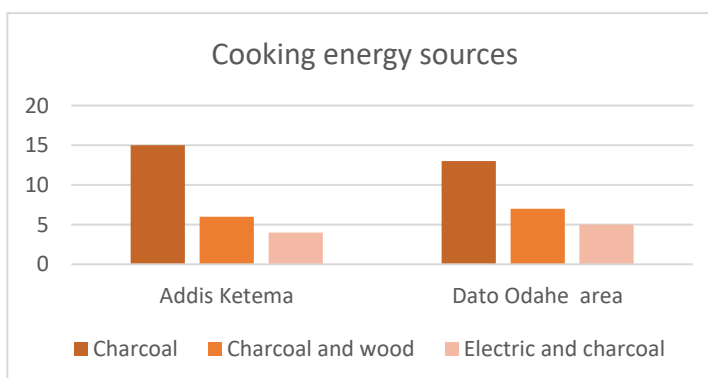


Fig. 5.29 Cooking energy source comparison

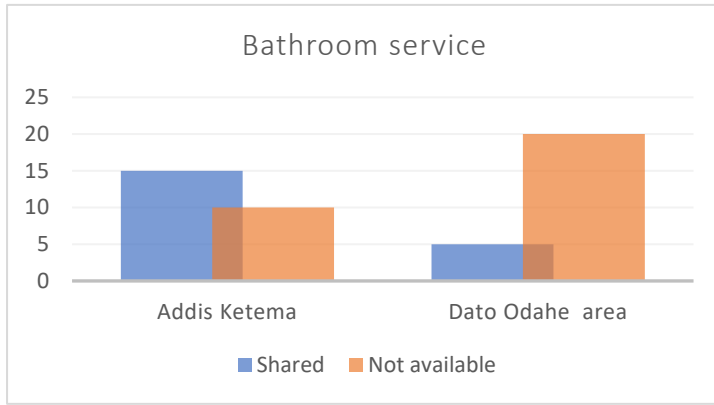


Fig. 5.30 Bathroom serve comparison

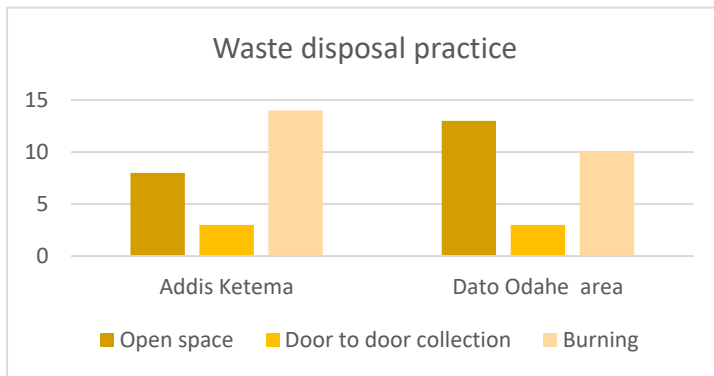


Fig. 5.31 waste disposal system comparison

II- Physical condition of the housing

The housing building structures studies were the age of buildings, roof, wall ; doors and windows and floor materials and qualities.

The Adis ketema were all built on 2015 GC with same materials and finishing. In the other hand the second case study area has different housing status with different qualities and age of the building structures.

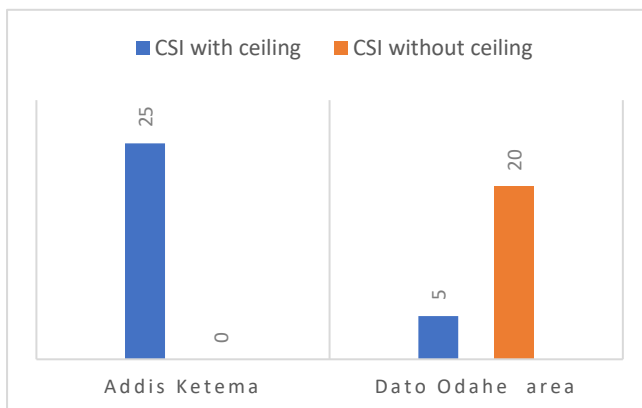


Fig. 5.32 Roof structure condition

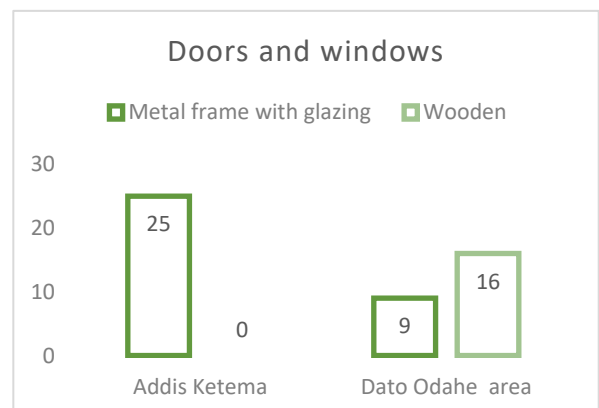


Fig. 5.32 Doors and windows condition

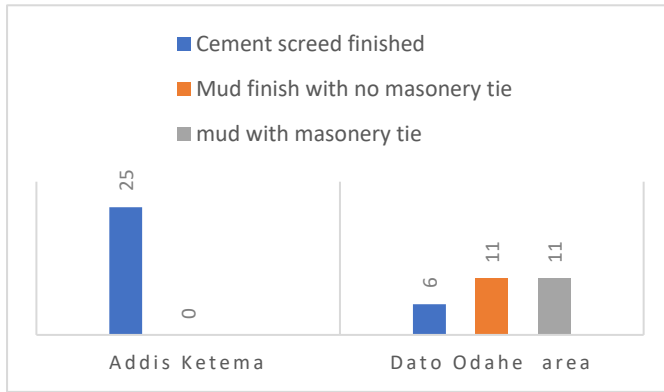


Fig. 5.34 Floor structure condition

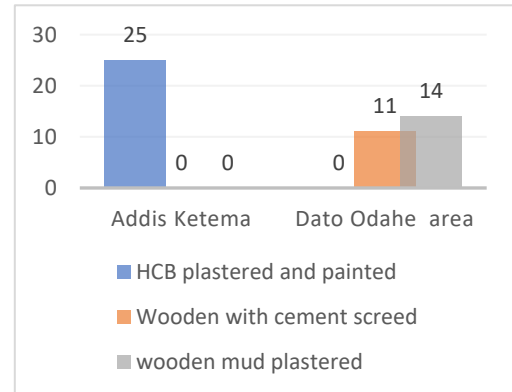


Fig. 5.35 wall structure condition

### III- The socio-economic effect of the housing condition

This part will be discussing on social and economic impact of the housing condition of the two study cases. The social impact related to social interaction of the housing extending to the neighbourhood, and under the economic impact of the housing: expenditures of food, house rent, transport saving amount and other expenses that are directly or indirectly related to housing and the neighbourhood under the study.

The housing in both case sites have social interactions among the workers, but there no extended with the neighbourhood or house renters. All studies samples do not take part in social institution like: 'Idir', 'Equb', 'Mahber' or other existing system in the neighbourhood. As explained by the respondents, these is due to financial shortage and usually moving to different rental houses would not let them to be part of the social institutions.

The other social issues studied and analysed were the safety and security issues related to the housing in both sites. The listed crime committed against the respondents has same character in both sites: Robbery, physical attack or other types. This was mainly due to the work shift hours. The crime happens in the early morning time when going to work or; for the second shifts when coming back from work. So, the main problem that exposed them were not he neighbourhood but the work time shift. Both sites have witnessed this case.

The other main study was the economic impact of the housing. This was evaluated through the income and expenditures of the respondents in both sites. This includes: income, expenditures of food, house rent, transport, saving and other expenses in both sites. These are tried to find logics of the economic situation of the housing effect.

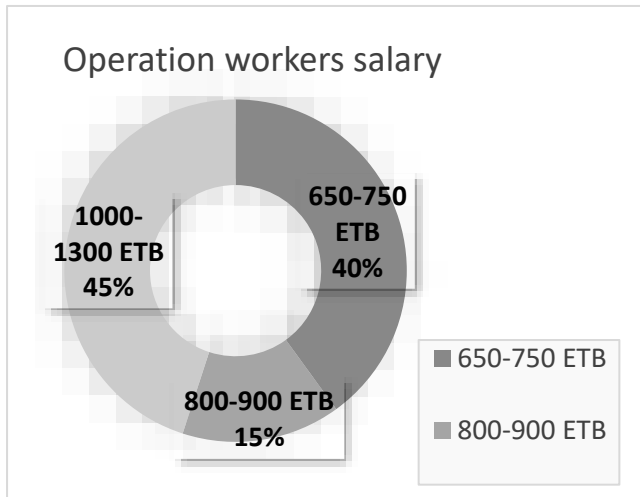


Fig 5.36 House rent comparison of the two-study areas

The diagram shows that the salary of HIP operation workers ranges from 650 ETB to 1300 ETB. These variations are due to the salary scale differences in the employing companies. Some companies have fixed amount salary where as others consider over time workloads to pay. Some in the other hand increase the salaries with work experience, from 6 months and above get increases.

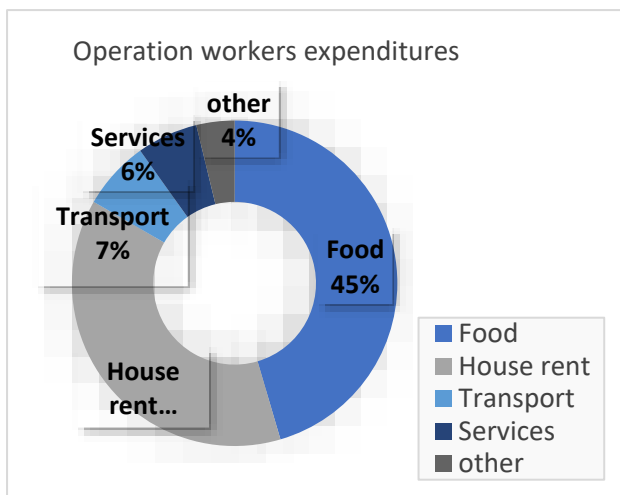


Fig 5.37 House rent comparison of the two-study areas

The study shows that the expenses huge amount goes to food and house rent. this was summarized taking all respondents amounts average, since the amounts have close digits.

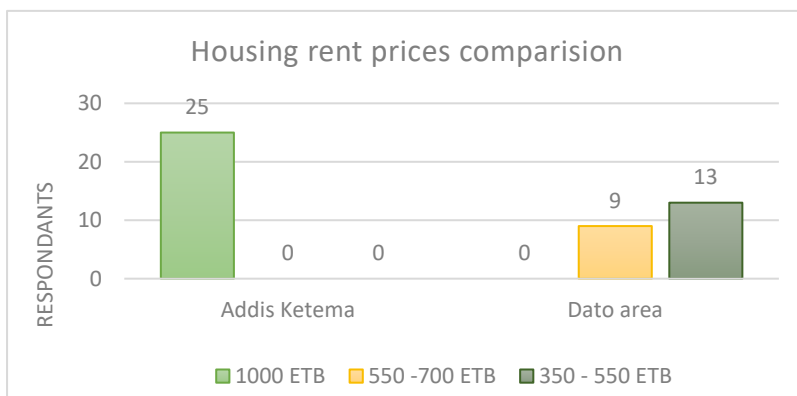


Fig 5.38 House rent comparison of the two-study areas

### 5.7 Aspiration of the IP workers to their job and stay in Hawassa city

The study also tried to identify the aspiration of the works to reside in Hawassa city and interests to work in HIP in the future. Respondents from both sites with mass number do not want to stay in HIP, for mainly its low salary and workloads and shifts. In spite of their experiences in HIP, they most want to stay in Hawassa city, as they believe there are job opportunities than their home towns and rural areas. Under the following table summarize their aspiration and reasons to it.

Aspiration to stay in Hawassa City	Responses	Percentage	Reasons to stay
Wanting to stay	Yes (35)	70%	Liking the city now It is my dream city To better life and job opportunity in the city To upgrade my education
	No (15)	30%	It is expensive life Want to go back to where I came from Am staying till I get my experience certificate

Table: 5.6 Aspiration of the workers to stay in HIP

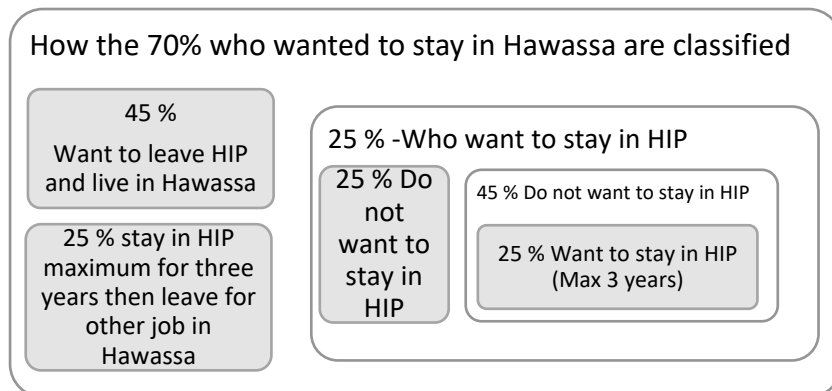


Fig 5.39 Future aspirations of the workers who want to stay in Hawassa city

## Chapter 6- Summary of findings and recommendation

This chapter discusses summary of the study, findings of the study and recommendations provided. The main purpose of this section is to state what the study found and performance of the data analysis of the two case sites. It is organized in order to answer the research question and within the following frame works. The housing condition are summarized according to the physical, economic and social aspects. And the section discusses the summery socio-economic impact of the housing condition. It will then describe the findings and recommendations of the study has suggested.

### 6.1 Housing condition of HIP operation workers' summery

#### 6.1.1 Physical condition of the housing

The physical condition studied the building materials physical infrastructures and services in the house compound or in the neighbourhood.

The first study site: Adis Ketema area, showed that there were 536 rental rooms with same size (3M by 4M; 12 sqm) shared to four workers. The construction materials used were painted and plastered HCB walling material with metal frame doors and windows. They all have electric power for light source and have shared toilets but the infrastructure problems were shower room, cooking area or kitchen and waste disposal system. They workers use different source of energy for cooking (charcoal mostly and wood sometimes).

The second study site, Dato Odahe area, shows that the houses the worker's live in were rental and but their sizes vary. The buildings were characterized with unfinished construction (especially ceiling and flooring) with wood, mud and thatch mix walling some with cement screed wall plaster, materials were used. The study grouped the physical condition of this specific site studied categorizing into three groups: poor condition, medium and good condition; according to evaluating the walling roof and flooring materials and the finishing materials used or absent. With all the parameters, the housing had good roofing condition and medium doors and windows condition but the floor and finishing materials were in poor condition.

#### 6.1.2 Economic condition of the housing

All the housing was rental and the range they pay for rent were found to be from 30%- 38% Of their income.

- A. The rental house in 'Adis Ketema', were constructed with the collaboration of IPDC and Hawaassa city administration with participation of willing Hawassa city residents who own a plot and have open land to construct the rental house for the HIP workers with fixed price;

1000 ETB per month. The strategy was to build these rooms and rent for four workers in a room financed by IPDC, with 34,000 ETB credit money for every rental room.

The housing scheme in the Adis Ketema was a good start but mostly the operation workers find it expensive; 1000 ETB which is shared among 4 roommates, whom they may not know each other. Sometimes the roommate steal things from each other. This factor threatens the workers, and do not want to stay in the HIP rental house. One of the roommate may leave the house any time and the burden will be on the house owners who has to pay the credit to SMFI every month.

This housing scheme was good initiation to better the economy of the residents; as it upgrades their asset and be income source onwards; own the rooms after three to five years of credit paying time; and then potential will rent and get income after the credit is returned; For some who had no regular income or employment especially for elder citizen the housing scheme made them happy.

The challenges for the owners were the continual moving out of the workers, are extending the credit period (three to five years) and be free from renting IP workers. SMFI as a solution for the problem the owners are facing to pay the credit monthly; they let one room to be rented out for other resident other than IP worker. Some of the owners pay from their pockets in order to be free from the credit.

These housing for the workers were relatively have better quality and fixed rent price. But the individual rent share is higher (38% of their income). The workers get salary increase from six months and above but depending on the company they work in. Thus, the affordability of the house is difficult for most workers.

In addition to the house rent the Adis Ketema neighbourhood is well services area, lack small local markets and shops where some household food items could be found in less prices. They have to shop from main market of the city weekly.

- B. The economic condition of the 'Dato Odahe' area shows that the rent prices lower but the individual share was higher (42% maximum). But the food expenditures are lower here for some local small markets "Gulit" are found in the nearby neighbourhoods. The workers therefore spend. There was no transport problem to come from HIP and to the work.

The HIP induced the rental house in peripheral areas of new expansions of the city; where previously were not legalized areas. There also include the rural areas of the city' Tula' area now has many workers residing there.

### 6.1.3 Social condition of the housing

The social condition of the house in 'Adis Ketema' identified the social activities and security issues which came from the development of HIP or the workers impact in the neighbourhood.

The arrival of the workers to the neighbourhood has affected the security and some crime commuted in the area; In both study sites, the residents witnessed that there is rise of robbery at the peak hours (5 AM or 11 AM) when the workers are getting to their home or going to work times. This usually happened between the distance from the service bus drop to their houses compound the thief wait them around.

Social interaction of the resident with the house owners or to their neighbourhood was less due to different factors. According to the responses from the workers; work shifts time has made them inactive with the house owners or with the neighbourhood. The workers usually sleep after getting out from work being tired of long standing hours at work place. The social interaction is less extended with in the compound or in the neighbourhood.

Most house owners agree the state of workers continues moving out from the rented houses; for different reasons; this resulted from house owners point of view was one of the factor which created loose social interaction. The workers preference to rent the house were roommates choice, wanting close friends or who came from same home town. The houses in 'Adis Ketema' lack social strength, some steal from their roommates and sharing to four difficult for smooth social bond. They usually therefore move out and rent in different peripheries area of the city to live with their close friends.

## 6.2 The socio-economic effect of the housing condition

The study summery the housing condition affected the socio -economic condition of the workers. The fact that they came from rural areas, adapting to new city lifestyle was a major challenge for them. The houses spaces were comparatively confined and lacking services. And getting the services are costly; especially buying water for household activities; the problem is intense in 'Dato Odahe' area.

The housing in 'Adis Ketema' strategy, to share a room to four, only considered the affordability but it impacted the social condition of the residents. Most worker continuously moves out for the inadequate space shared (3sqm/person). The insecurity between the roommates is the other social theroat. In addition to this, the security problems from late night or early morning work shifts, has been the social problem. There are robbers and thieves waiting for the workers when the get home after getting off the bus. In the other hand the site has less access to market; no small local

markets" Gulit" (where food items and vegetations are found with less prices.). they go to the main market with taxi.

The Dato site, has better social interaction between the roommates; these was because the workers live with friends and fell secured to live together. The rent share but is high than the other study site. They share a rent to two or three. They will have better relaxed space but they pay from 200 ETB to 300 ETB for the rent. The workers prefer to reside in low quality house with higher rent price than to share to four. The other economic opportunity of this site is, there are local market "Gulit" in number proximate to the neighbourhoods. Here food items can be found with little prices.

The housing condition impact on the economy of the workers' can be summarized through affordability of rent, expenditure of food mainly and other expenses which has risen from the housing condition. The rental prices, even though they are 30-38% of their income which is border line unaffordable, their overall wages are low compared to their expenditure on basic expenses such as food. Therefore, the rent prices were not affordable and workers are struggling to pay. The expenditures review was on rent, transport, food, health, saving and other parameters. The major expenses were the rent and food expenses. The workers are thus looking for places were living and rental expense are more affordable, and where they can have better social relationships. The peripherals area, sometimes comparable rental prices for low physical quality of houses and less proximity to work and other services and infrastructure, but they had lower cost of food items and better control of who their room mates are and better social interactions.

### 6.3. Summary of Findings of the study

- Hawassa Industrial park operation workers are recruited from zonal offices or self-applicants. These youths were girls and single marital status are required to apply. The age range was from 16 to 35 years old women.
- The HIP induced housing was dormitory rooms as hostels with made created less social attachment. In fact, the workers are selected only if they are unmarried and do not have children which already creates a temporary feeling as ultimately workers would want to marry and settle. But this situation is not designed to create a settled neighbourhood.
- The HIP workers live in rental houses paying from 30 % to 38 % of their income which makes it borderline affordable. The provided by HIP aside from its inadequacy in terms of numbers has challenges of financial viability for the landlords. There were some services limitations in fulfilling basic physical requirement of residence. Over crowdedness and lack of privacy was noted in these houses.

- The industry park workers prefer to rent units based on social factors such as who their room mates are, where their friends or people they know reside rather than the economic factors or the physical condition of the houses. In spite of the poor housing quality and less services available services availability, large number of workers preferred to rent rooms in informal rural neighbourhoods in the outskirts of Hawassa than the rental housing scheme prepared for them.
- The study revealed that, the housing of the HIP workers were inadequate due to the following major characteristics agreeing with international check points; mainly related to location (if the housing cut off from employment opportunities), Tenure, services and other social services.
  - A. Both the study cases site housing tenure were rental. The insecurity of eviction is high in rental houses. When comparing the two sites, insecure for eviction or rise of prices, is less in the first site (Adis Ketema area) but higher in the second study area: 'Dato Odahe' area. The house owners in the second case may increase rent price at any time or for any reason. But 'Addis Ketema' site housing is secure by the HIP and fixed the price and no eviction of workers until the defined period is over.
  - B. Even though there are water and electrical services in both sites; but the quality of the services were poor; with lack of some facilities, sanitation problem (no shower), no proper drainage.

The physical quality of the housing in 'Adis Ketema' sub city has better construction and material strength. They are built with professionals with in the municipality and supervision of sub cities follow ups. It is well services in infrastructure: water, electricity, better road and access pavements of the neighbourhood, but it has no separate cooking are planned, and no shower room reserved. And the house is shared for four workers in 12 sqm area; which is the space for cooking, sleeping, dining and dressing.

Whereas the physical condition of Dato are houses are poor with the listed lack of services and less power of electricity. The construction material has poor quality and locally available materials: thatch with mud mix mostly. The title deeds for the land owners were given with in the last five years' time. there were economic challenges to construct the rental houses with better quality.
  - C. The city administration has no regulatory mechanism or legal framework to control to the housing rent price; Especially for one of the study case; Dato area; even if the housing has low physical quality, the rent price is rising from time to time.

Affordability of the rental house was less challenging the workers because they share the room and rent costs with roommates.

- There was no housing development plan related to industrial park development in federal or region level. Industrial parks are developed with little housing integration to it.

The housing development in 'Addis Ketema' sub city, was as dormitory rooms, a room to be shared to four IP workers. Their roommates were left to be selected by the workers, but not of the time they only can find a friend or two to be with. The rest roommates are assigned by the IP worker when vacant rooms are available. These housing schemes were not planned to let the workers be interactive with the neighbourhood they live in. No additional services were provide targeting the arrival of the workers.

- The dormitories housing scheme lacked integration of services and infrastructure. The IPDC housing scheme though about the provision of a room (physical provision) but it lacks socio-economic integration to the houses. As explained by Turner (Turner 1976); Provision paradigm which limited the social and economic opportunities of the resident, this relates to the housing scheme here in HIP. The housing only has proper room to sleep in but no addition social services in the compounds or in the neighbourhood they live in or economic opportunity which potentially create attachment to the area they live in.

- The workers continuously moved out from one house to another; have less social attachment to the neighbourhood they live in. The workers social and economic life has also been negativity affected due to their housing condition. Even though the housing rent is shared 250 ETB per person, they rent even to rent price but lower quality.

- The social interaction of the study was found to be poor; the instability of the workers and the work shifts has affected their social life. The house owners have also said that they do not have suitable time to site and be involved to social matters in the compound or in the neighbourhood.

- The housing shortage in the city which came from the arrival of the HIP workers has activated peripheries and rural parts of the city (Referral hospital, area, Alamura area, Chefe Cote Jebisa area, and others) for rental houses. According to the study these areas partly have got legally title deed recently. The areas are characterized with local construction materials with unfinished structures. But these type of low quality houses are let to rent since the workers migration.

- There areas used to be expansion and new lease area, which were inactive the workers preference to rent the houses are more influenced by social factors still economic factors following. In spite of the good housing provided they prefer to choose low housing quality and less as housing is not only provided to be a shade but need to be integrated with social and economic factors (Turner 1976). The economic opportunity to get food items with in small local markets in the neighbourhood, and to have socially stable life, they prefer these areas (which are usually the peripheries of the city;

➤ Many HIP workers leave their jobs because of the work culture and pressure at work place, low payment and other economic issues to fit into the city life. But the study shows that the current working population want to leave the industrial park but most of them still want to continue residing in the city.

The housing condition findings:

- Physical condition: The area of the rental rooms in both sites, had maximum 4Mx4M and lowest 2.5MX 3 M which are all shared among three to four friends living together.
  - The housings in both case study sites have no cooking space or kitchen and almost all has no shower space provided.
- Social condition: The chance of getting the rental rooms in Adis Ketema is coming down as it is only few numbers are available; The workers get the house if left out rooms or roommates has moved out. This is rare to get the opportunity.
- Economic condition: The housing in both study sites most are difficult to affordable but the preference to rent depends not on the rent price but other social and economic factors. The workers prefer to live with friends they know than to live in better house with strangers.
  - The house rent price is not affected by the proximity to the HIP. There are less rent prices both near to the HIP and far away from the park. For there are transport services to different area.
  - The capacity to afford made the workers prefer less rent prices than housing quality when renting the houses. The housing they prefer to live in lack finishing works, especially floors and ceilings are not constructed. The works believe that they have no much choice.
  - The location of houses affects the cost of the rent, according to the rent prices in the city. But in the area where IP workers prefer to live, the rent price is lower than inner city rent prices; but higher than HIP built rental houses.

## 6.4 Recommendations

Development of industrial parks in Ethiopia are dynamic and going in speedy way. Along the country's main trade and transport access lines. This development is irreversible and the study of Hawassa IP will be input from on how to accommodate the workers and sustain the development. Stable workers will get skills and get the national target of development to higher level. Housing the mass workers with intelligent strategies for the housing problem will keep the development to up right and steady increase. Hereafter therefore the study recommends on to the

current strategy of the housing scheme and to other housing strategies, arising from the problems and findings the study has brought.

#### 6.4 A- Recommendation to Federal level

- From international best housing project practice experiences: mass housing project should consider neighbourhood with inclusive composition; urban density has to be carefully planned and political commitment (national influence) is the main force to realize the strategies and projects. As HIP will employ 60,000 in the coming five years the housing need national intervention. There needs to be a national housing development strategy related to industrial developments.
- There should be an institutional set up for proper planning of industrial park developments, but integrated with city plans, and having long-term established settlements in mind. Integrated with housing coordinating regional and city administrative. The city government should be responsible for follow-ups, strategy development and make studies; to forecasted or identified problems.
- There should be an institutional set up for proper planning of housing for Hawassa Industrial park with well-coordinated efforts between the city, the industrial park and local authorities. Involving the private sector in housing provision is a creative solution, however, this should be comprehensively considered social dimension of housing condition including the integration of IP workers with local people. The city government should be responsible for follow-ups, strategy development and make studies; to forecasted or identified problems.
- In order to reduce the impact of large number of industry workers on single towns, and also to reduce cost of living, residences for industry workers could be divided in nearby satellite towns as well as Hawassa itself.
- As planned by the IPDC the housing scheme phase; housing within the HIP compound should integrate housing with service and infrastructure facility and security of the workers.
- More studies should be made continuously about the effect of industrial parks and measures taken to find out which solutions work and which ones need improvements. The IPDC should think in terms of continuous improvements as IPS are being built in large scale nationally in many parts of the country.

#### 6.4 B- Recommendation to regional government and city administration

- The housing development in regional states need to create workable financial scheme in developing housing to the population of industrial parks.
- The city should have developmental plan integrating housing to HIP workers. The housing scheme, as it was started should be worked with collaboration of the city administration and better involvement. As these mass number of workers coming to the city, are potential economic

forces if targeted. This could be also integrating IP housing with other housing option the government has designed.

- There should be integrated housing development; The workers not only need house to live in but uses the services in the city; need services such as markets transport systems health services, open spaces etc. which could improve the city economically and socially. There should be alternative services targeted to the workers.
- The housing scheme developed or planned need continual follow ups and checking of its workability.

The HIP housing in Adis Ketema, the house owners are having problems to pay the credit return regularly due to the continues move outs of the workers. To help this, there should be cross subsidized through some rooms to be rent out for other with the city rent price. This should lower the rent price for IP workers and to live to three workers in a room. This strategy can be duplicated to other sites in the city.

- The development of industrial parks crowd region cities housing and other services, therefore the load should be shared to satellite towns. Contextualizing different rental housing scheme should be duplicated with other parts of the city; especially to the peripheries and new expansion area of the city. These areas have low income group of society. Most of the building structures in this area are unfinished and low quality. The housing scheme can be practiced with extended credit payback time and with less rent price in these areas which will benefit mutually the residents and HIP workers. The workers not only need accommodation but groceries with less prices. Local markets should be proximate to the housing sites.
- Most workers want to leave the HIP job but will stay in Hawassa city, this implies that there are mass number of migrants who come to the city for job and all need housing. The city should set strategies to benefit from the mass migrants.
- There should be bottom up strategy to house the workers. Integrating willingness of low-income residents of the city in the housing scheme will help them attain an asset as well help the workers secure housing with affordable rental prices.

#### 6.4 C- Recommendation to HIP

- The IPs should restudy their model to make sure their plan is consistently appealing to local workforce while remaining competitive
- The housing scheme which is planned to be developed in HIP should be integrated housing which will increase the productivity of the workers. Most workers struggle to pay for house rent and

food, therefore integrating the work place with housing will decrease signing out of employees.

Integrating housing in the HIP will better the safety and security of the workers.

- Working hours has to consider housing accommodation: There should be resting spaces to pass the peak hours and then go home then after. Or there should be rental houses / governmental or private in distinct places where service drops the works on the spot.

## References

- Abate, Dr. Derbisa. 2017. *Research Methodology*. Addis Ababa: Mega publishing.
- Barcelona Urban Thinkers Campus. 2015. *Urban thinkers campus , housing i the city we need*. Barcelona: World urban campain.
- Bieri, David S. 2012. "Housing affordability." July.
- Bonde-Henriksen, Nils,. 1982. *Industrial park development: An overview and case study of Myles Standish* . University of Rhode Island.
- census, Federal Democratic republic of Ethiopia population. 2008. "Summary and Statisticalr Report of 2007 GC Population and Housing census."
- Christopher. n.d. "Qualitative Data Analysis."
- construction, Minister of Urban development and. 2013. "Urban housing Strategy of Ethiopia." Addis Ababa.
- Duncan, Jennifer. n.d. *Causes of Inadequate housing in Latin America and the Caribbean* . Habitate for Humanity Latin America & the Caribbean .
- . 2005. *Causes of inadequate housing in Latin America and the Caribbean*.
- Eshetu, Berhanu. n.d. "Hawassa city Socio-economic Profile (1999-2001 E.C)." Hawassa.
- Ethiopia, The Federal democratic republic of. 2015. *Industrial park proclamation*. Addis Ababa: Federal Negarit Gazette.
- Ethiopia, UNICEF. 2016. [www.unicef.org>ethiopia](http://www.unicef.org/ethiopia).
- Ethiopian Urban Development Housing, Ministry. 2015. *National Urban Development Spatial Plan*. Addis Ababa: Egis International in association with IAU-IdF&Urba Lyon.
- GAROMSA, Hailu Tefera. 2016. *Highlights of Bussiness and Investment Opportunites inEthiopia* . Tokyo,Japan: Embassy of the Federal Democratic Republic of Ethiopia.
- Gebeyehu Abelti, Marco Brazzoduro, Behailu Gebremedhin. 1994. *Houing conditions and demand for housing in Urban Ethiopia*. Addis Ababa: Central Statistical Authority (CSA).
- HABITAT, UN. 2008. *Housing for all: The challenge of affordability,accessibility and sustainablity*. Nairobi: programme, UN-Human settlements.
- ILO. n.d. <https://www.ilo.org>. Accessed April 2019.
2017. *Industrial parks in Ethiopia incentive package*. Addis Ababa: Ethiopian Investement commission.
- Industry, FDRE Ministry of. 2013. *Ethiopian Industrial development strategic plan(2013-2025)*, . Addis Ababa.
- JHA, ABHAS. 2018. "(<http://www.worldbank.org>)." October.
- Kalugina, Anastasia. 2016. "Affordable Housing Policies: An Overview." *Cornell Real Estate Review*.

- Kamete, Amin Y. 2001. *The quest for affordable urban housing: A study of approaches and results in Harare, Zimbabwe*. Harare: Carfax .
- Lien, Le Thi Bich. n.d. "Housing for Employees in Vietnam."
- Meşter Liana-Eugenia, Bugnar Nicoleta-Georgeta. n.d. "THE ROLE OF INDUSTRIAL PARKS IN ECONOMIC DEVELOPMENT." Oradea, Romania.
- Nor Rashidah Zainal\*, Gurmit Kaur, Nor 'Aisah Ahmad & Jamaliah Mhd. 2012. [www.sciencedirect.com](http://www.sciencedirect.com). July.
- Ohno, Keinchi. 2017. "Hawassa Industrial park Impression from Japanese perspective." Tokyo.
- Ohno, Kenichi. 2017. "Hawassa Industrial park impression from Japanese perspective." Tokyo.
- Omole, Kayode Felix. 2010. "www.researchgate.net/publication/228617021." *Contemporary Management Research*. December.
- Tegenu, Tesgaye. 2010. *Urbanization in Ethiopia: Study on Growth, Patterns, Functions and*. Stockholm.
2018. [theintercept.com](http://theintercept.com). July.
- Timmins, Geoff. 2013. "Housing Industrial workers during 19th C." *Industrial archaeology review* 111 - 127.
- Turner, Jhon F.C. 1976. *Housing By people Towards Autonomy in Building Environments*. New York.
- UN-HABITAT. 2005. *Financing urban shelter*.
- UN-HABITAT, United Nations Center for Human Settlements. 1996. "An urbanization world."
- Vidová1, Jarmila. 2010. "INDUSTRIAL PARKS - HISTORY, THEIR." *REVIEW OF ECONOMIC PERSPECTIVES, Volume X. Issue 1*, 41-58.
2018. [www.hawassaonline.com](http://www.hawassaonline.com) . 20 February.
- Yin, Robert K. 2003. *Case study research Design and Methods*. California: SAGE Publication.

**Annex 1 – Standard questioner for IP workers**

Name of Interviewer: \_\_\_\_\_

Names of interviewee: \_\_\_\_\_

**1. Profile**

**1.1. Personal profile**

- Age: \_\_\_\_\_ Sex: \_\_\_\_\_
- Marital status: (Single, Married, divorced, widowed, other)
- Family size \_\_\_\_\_
- Educational background: \_\_\_\_\_
- Other skill or training: \_\_\_\_\_
- Where did you came from? \_\_\_\_\_
- When did you come to Hawassa? \_\_\_\_\_
- Why did you come to Hawassa? \_\_\_\_\_
- How did you come to Hawassa? \_\_\_\_\_
- Did you come to Hawassa alone or with family? \_\_\_\_\_
- If not Why? \_\_\_\_\_

**1.2. Family background:**

No.	Name	Relationsh ip in the	Gender	Age	Marital	Income / month in	Special Skills	Job type temporary permanan	Remark
1									
2									
3									
4									
5									
6									
7									
8									

**2. Economic condition**

2.1. Monthly Income: \_\_\_\_\_

Other source of income \_\_\_\_\_

What other activity do you do in Hawasa income generating or other?

\_\_\_\_\_

2.2. Expenditure \_\_\_\_\_

Expenditure	Daily (in Birr)	Weekly (in Birr)	Monthly (in Birr)	Total	Remark
1. Transport					
2. Food					
3. Water					
4. Electric					
5. Health					
6. House rent					
7. Other					
<b>Total</b>					

### 3. Employment profile

#### 3.1 Current company you are working in

- Period of employment in the industry park

\_\_\_\_\_

- Period of employment in the current company

\_\_\_\_\_

- The company special service to its workers:

\_\_\_\_\_

- House allowance \_\_\_\_\_ Food

\_\_\_\_\_ Health \_\_\_\_\_

Skill development / Training \_\_\_\_\_ Clothes

\_\_\_\_\_ Other \_\_\_\_\_

- (If you changed job with in IP) Why did you change the company with in the Hawassa industrial park?

\_\_\_\_\_

- For how long is your Plan to work in the industry park? \_\_\_\_\_

- Pervious work experiences \_\_\_\_\_

3.2 How did you hear about the job? \_\_\_\_\_

3.3 What did you hear about the job? \_\_\_\_\_

3.4 What was your expectation when coming to work in the industrial park?

\_\_\_\_\_

3.5 How did find you expectation after you become a worker in the industrial park?

\_\_\_\_\_

3.6 What is the advantage of working in the industrial park?

3.7 What are the disadvantages of working in the industrial park?

\_\_\_\_\_

3.8 What challenges did you face as the industrial park worker?

\_\_\_\_\_

#### 4. Housing profile

##### 4.1. Where did you stay when you first arrive in Hawassa? (Mark on map)

\_\_\_\_\_

- The house tenure type? Private/ Kebele/ Informal/ other

\_\_\_\_\_

- For how long did you stay there?

\_\_\_\_\_

- How was the housing occupied? (Shared, private, other)

\_\_\_\_\_

- Why did you move out?

\_\_\_\_\_

- How much did you pay for rent?

\_\_\_\_\_

- What did you like about that house?

\_\_\_\_\_

##### 4.2. Current house status

Location and address \_\_\_\_\_

How far is from transport/service drop (Map) \_\_\_\_\_

Period of stay in this house \_\_\_\_\_

Why do you choose the house? (Price, location, friends, renter's problem other

\_\_\_\_\_

Housing living way: (Shared, individual, family/relative, other

\_\_\_\_\_ )

What is the challenges of the housing? \_\_\_\_\_

Is the house rental? \_\_\_\_\_

How much do you pay rent at present? \_\_\_\_\_

(If the house is rental) Is there rent price change in the period? How?

\_\_\_\_\_

**4.2 Physical condition of the house**

Area \_\_\_\_\_

Wall material \_\_\_\_\_

Floor material \_\_\_\_\_

Roof material \_\_\_\_\_

Ceiling material \_\_\_\_\_

Number of other rental housing unit in the compound  
\_\_\_\_\_

**4.3 Sketch of the compound and the house**

**4.4 Previous housing condition**

How many houses did you move since you work in the industrial park?

\_\_\_\_\_

Reason to move out: (Price, location, friends, other

\_\_\_\_\_

Period of stay in the house \_\_\_\_\_

Why did you choose the house? (Price, location, friends, other

\_\_\_\_\_

Housing condition: (Shared, individual, family/relative, other

\_\_\_\_\_ )

What is the challenges of the housing?

\_\_\_\_\_

(If the house is rental) Is there rent price change in the period? How?

\_\_\_\_\_

5. Social interaction

5.1 With whom do you live? Alone, Family, Friend I knew, Friend I become , other

\_\_\_\_\_

5.2 Do you have social group? Edir  Equb  Mahiber   
Others

5.3 What is the basis for social interaction?

\_\_\_\_\_

5.4 Do you have a communal space that you use for holidays and other ceremonies:

yes No

? \_\_\_\_\_

5.5 What are the benefits you get from the social interactions?

\_\_\_\_\_

5.6 How do you spend your day offs/ weekends? (Is there habitual actions)

\_\_\_\_\_

5.7 What are your suggestion to improve your social interaction?

\_\_\_\_\_

6. Safety and security

6.1 Has any crime been committed against you in the neighbourhood? Yes  No

6.2 Has any crime been committed against people you know in the neighbourhood?

What? \_\_\_\_\_

Where? \_\_\_\_\_

When? \_\_\_\_\_

6.3 Has any crime been committed related to your work going or coming time?

Yes  No

What? \_\_\_\_\_

Where? \_\_\_\_\_

When? \_\_\_\_\_

6.4 Is there any safety or security issues at the work place?

\_\_\_\_\_

7. Activity table to show their special activity through the day and the week?

7.1. Week days activity table

No.	Time	Activity	Place/space of the activity	Remark
1				
2				
3				
4				

5				
---	--	--	--	--

**7.2 Day offs activity table**

No.	Time	Activity	Place/space of the activity	Remark
1				
2				
3				
4				
5				
6				

**8. Public facilities**

Service	Location	Means of transport	Name of service	Frequency of visit	Remark
Market					
Grinding mill					
Church/Mosque					
Hospital / Clinic					
School					

**9. Physical infrastructure**

- 9.1. Cooking: Hydro Electric  Generator  charcoal  kerosene  fire wood   
 animal dung  other
- 9.2. Light: Hydro Electric generator  candle  kerosene  fire wood  biogas   
 Other
- 9.3. Source of drinking water: Private  communal/compound  public  spring  
 water  river  other
- 9.4. Solid waste disposal system: Door to door collection  private   
 other
- 9.5. Gray water disposal system On the road  storm water ditch   
 septic tank  other:
- 9.6. Black water disposal: On the road  storm water ditch   
 septic tank  other:

**10. Future plan future house discussion**

- 10.1. Do you wish to remain living in Hawassa city? \_\_\_\_\_ why?
- 10.2. How do you wish your house to be in Hawassa city?  
 Location / Why? \_\_\_\_\_

Size/ Why ? \_\_\_\_\_

Infrastructure \_\_\_\_\_

Other suggestions \_\_\_\_\_

How much rent would you afford? \_\_\_\_\_

How much can you save? \_\_\_\_\_

**11. Where do you see yourself in five years' time? \_\_\_\_\_**

Education status \_\_\_\_\_

Economic status \_\_\_\_\_

Job \_\_\_\_\_

Other \_\_\_\_\_

11.1. Where do you want to live in the future? Why?

\_\_\_\_\_

11.2. In what type of house do you want to live?

\_\_\_\_\_

Why do you choose? \_\_\_\_\_

When do you want to have a house?

\_\_\_\_\_

How do you think you own a house in the future?

\_\_\_\_\_

11.3. What kind of people do you want your neighbour to contain?

\_\_\_\_\_

11.4. What kind of services do you want your neighbourhood to contain?

\_\_\_\_\_

Annex 2 – Questioner for House renters

**Rental house owners Questionnaire:**

**1. Personal Profile**

Head of household \_\_\_\_\_

House: number \_\_\_\_\_

Tenure type \_\_\_\_\_

Period of stay in this house \_\_\_\_\_

Family size \_\_\_\_\_ Male \_\_\_\_\_ Female \_\_\_\_\_

Job - (Employment type) Governmental / Private / Self-employed / Unemployed / Other

\_\_\_\_\_

Family income \_\_\_\_\_

Other source of income \_\_\_\_\_

Income before renting \_\_\_\_\_

Income before IP renters \_\_\_\_\_

**2. Economic condition**

**2.1 Monthly Income:** \_\_\_\_\_

**Other source of income**

Expenditure	Daily (in birr)	Weekly (in birr)	Monthly (in birr)	Remark
8. Transport				
9. Food				
10. Water				
11. Electric				
12. Health				
13. Other				

**2.2 Expenditure:** \_\_\_\_\_

**3. About the rental Houses**

3.1. Do the house owners live in the compound? Yes  No  (If no where do they live?) \_\_\_\_\_

3.2. When was the rental housing in your compound was built?  
\_\_\_\_\_

3.3. How many rental housing are there in the compound?  
\_\_\_\_\_

3.4. Do you have other rental housing other than in your compound?  
Yes  No   
Where is it located? \_\_\_\_\_

When was it owned? \_\_\_\_\_

How many rental housing units does it have? \_\_\_\_\_

How much is rented? \_\_\_\_\_

**3.5. Sketches of the compound and the houses**

3.6. What is the source of the housing finance?

\_\_\_\_\_

3.7. Do you have plan to build additional rental houses (or rooms)?

\_\_\_\_\_

3.8 Why do you want to build more rental house?

\_\_\_\_\_

3.9 What kind of residents do you prefer to rent the house for? And why?

3.10 What is the challenge in building rental houses?

3.11 How do you solve the challenges you face in building the housing units?

\_\_\_\_\_

3.12 Is there a rental price changes through time? Yes  No

3.13 If there is rental price change, what causes the change?

\_\_\_\_\_

**(Q. no. 4 TO 6 - ONLY FOR THE IPDC WITH SMFI BUILT HOUSINGS)**

**4 Participate in the process of the housing strategy for the industrial park worker's?**

4.1 Were you informed about the industrial park development before implementation? Yes  No

4.2 How did you hear about the housing strategy for the industrial park workers?

\_\_\_\_\_

4.3 What were you informed you had about the housing strategy for the industrial park worker's?

\_\_\_\_\_

4.4 Who informed you about the housing strategy?

\_\_\_\_\_

4.5 How was the support given by 'Sidama micro finance institute'?

\_\_\_\_\_

4.6 What were you asked to bring in order to get the credit from SMFI?

\_\_\_\_\_

**5 How did you participate in the process?**

5.1 At the Initiation stage

\_\_\_\_\_

5.2 Planning stage

\_\_\_\_\_

5.3 Implementation stage

- 6 How much credit money did you get from SMFI? \_\_\_\_\_
- 6.1 How much is the interest rate? \_\_\_\_\_
- 6.2 How long is the total payment period? \_\_\_\_\_
- 6.3 How many housing units did you build?  
\_\_\_\_\_
- 6.4 How much money do you return for SMFI monthly? \_\_\_\_\_
- 6.5 How much is each unit rented? \_\_\_\_\_
- 6.6 Are you returning the credit regularly? \_\_\_\_\_  
If not why? \_\_\_\_\_

7. What are the advantage and disadvantage the housing scheme of the industrial park development?

- a. Advantages \_\_\_\_\_  
\_\_\_\_\_
- b. Disadvantages \_\_\_\_\_  
\_\_\_\_\_
- c. What are the challenges of renting the house for the industrial park worker's?  
\_\_\_\_\_

8. Impact of the IP workers in the neighbourhood; before and after their arrival into the neighbourhood

- 8.1 How did you resolve conflicts in the neighbourhood?  
\_\_\_\_\_
- 8.2 Is there a market prices change from the basic commodities before and after the IP renters arrived in the neighbourhood?  
\_\_\_\_\_
- 8.3 Is there a business evolved since the IP workers arrived to the neighbourhood? What type of business? \_\_\_\_\_
- 8.4 Is there service sufficiency/crowded ness now before and after IP renter (such as schools and health services) \_\_\_\_\_

9. Social interaction

Edir       Equb       Mahiber       Others

- 9.1 What is the basis for social interaction? \_\_\_\_\_
- 9.2 Do you have a communal space that you use for holidays and other ceremonies:  
yes                      No  
\_\_\_\_\_

9.3 What are the benefits you get from the social interactions?

\_\_\_\_\_

9.4 How do you spend your day offs/ weekends? (Is there habitual actions)

\_\_\_\_\_

9.5 What are your suggestion to improve your social interaction?

\_\_\_\_\_

**10. Are you happy the IP is situated here? Why?** \_\_\_\_\_

10.1 What benefits have it brought to you? \_\_\_\_\_

10.2 What complains do you have? \_\_\_\_\_

10.3 Do you provide IP workers any other service? \_\_\_\_\_

10.4 Do you now any one in your neighbourhood who provides services targeted to IP workers, what is the service?

\_\_\_\_\_

### Annex 3- Key informant (officials') questioner

#### Key Informant questionnaire: Study on Impact of Hawassa industrial park

##### 1. Personal Profile

Position \_\_\_\_\_

Profession \_\_\_\_\_

Length of work experience at this position \_\_\_\_\_

Other work experience \_\_\_\_\_

Education: \_\_\_\_\_

Role in the position? \_\_\_\_\_

##### 2. Process

a. Were you informed about the industrial park development before implementation?

\_\_\_\_\_

b. How did you participate in the process? What was done?

I. \_\_\_\_\_

II. \_\_\_\_\_

c. What are the public facilities planned for the industrial park workers?

i. Housing options planned?-----

ii. Health facility for the industrial park workers (migrants to the city)?

---

iii. Transport service

---

iv. Other facilities developed for the industrial park workers

---

**d. What was the process in development of Hawassa Industrial park related to your work department? :**

i. Was there an existing situation study? Yes  No .

ii. If yes, which of the following are there?

1. Social study

2. Economic study

3. Physical (spatial) study

4. Environmental study

5. Historical (heritage) study

If so, are these study documents available? Yes  No

---

iii. How is the local population reaction to the industrial park development?

1. At the Initiation stage

---

2. Planning stage

---

3. Implementation stage

---

e. What are the advantage and disadvantage of the industrial park development?

---

f. What are the expected risk to the industrial park development?

---

g. Is there follow ups (reports/documents) in the current status of the industrial park? Yes  No

---

i. What are the current challenges of which are faced in the implementation of the industrial park?

---

ii. What are the measures taken for the current challenges that are faced?

---

---

h. What are the future plan related to the development of industrial parks ?

---

## Annex 4- Key informant (HIP Transport service) questioner

### KEY INFORMANT QUESTIONERIE – Transport service

#### 1. Personal Profile

- 1.1 Where did you come from? \_\_\_\_\_
- Did you come for IP work? \_\_\_\_\_
- Position \_\_\_\_\_
- Profession \_\_\_\_\_
- Length of work experience at this position \_\_\_\_\_
- Other work experience \_\_\_\_\_
- Educational background: \_\_\_\_\_
- Certificate or licence level: \_\_\_\_\_
- 1.2 Role in relation to IP workers housing? \_\_\_\_\_

#### 2. Working with Hawassa Industrial park

- 2.1 How many companies do have transportation service? \_\_\_\_\_
- 2.2 Your employer company name? \_\_\_\_\_
- 2.3 When did you get this job? \_\_\_\_\_
- 2.4 How did you get the job? \_\_\_\_\_
- 2.5 Who is your employer? \_\_\_\_\_
- 2.6 How frequent do you communicate with your employer or officials with in IP?  
\_\_\_\_\_
- 2.7 What do you discuss with the employer? \_\_\_\_\_
- 2.8 What is the job contract type? Permanent or temporary?  
\_\_\_\_\_

#### 3 Transport service

- 3.1 Where do you live? \_\_\_\_\_
- 3.2 How do you get to your work place? \_\_\_\_\_
- 3.3 What type of housing do you live in? (Private, rental, Kebele, institutional, other ) \_\_\_\_\_
- 3.4 What do you like about your current house? What do you dislike about it?  
\_\_\_\_\_
- 3.5 What time do you start your job every day? \_\_\_\_\_
- 3.6 How many shifts do you work? \_\_\_\_\_
- 3.7 What are the shifts time? \_\_\_\_\_

3.8 How is your weekly work schedule?

\_\_\_\_\_

3.9 What is your monthly work schedule? \_\_\_\_\_

3.10 Who are using the transport service? \_\_\_\_\_

3.11 How do you identify the employee of the IP using the service?

\_\_\_\_\_

3.12 What are the challenges of your job?

\_\_\_\_\_

4. Working environment

4.1 How many employees use your service \_\_\_\_\_

4.2 How many service stops/stations are there? \_\_\_\_\_

4.3 Where are the transport service stations? \_\_\_\_\_

4.4 Which stations drop mass workers? \_\_\_\_\_

4.5 What is the maximum number workers at a station? \_\_\_\_\_

4.6 Do the number vary when they are going to work or coming from work? \_\_\_\_\_

5. Safety and security

5.1 Has any crime been committed against you in the at you work? Yes  No

• What happened? \_\_\_\_\_

• Where has it happen? \_\_\_\_\_

• When has happened? \_\_\_\_\_

5.2 Has any crime been committed against people you know related to the work?

Yes  No

• What happened? \_\_\_\_\_

• Where has it happen? \_\_\_\_\_

• When has happened? \_\_\_\_\_

5.3 Is there any safety or security issues at the work place? Yes  No

6. Future plan

6.1 For how long is your plan to work with IP ?

6.2 Do you want to live in Hawass? Why?

6.3 Which area of the city do you want to live? Why?

Annex 5 – Applicants screening form for HIP (Gedeo Zonal office)

ቃን \_\_\_\_\_

**ሰብዓላ እንዲሰጥረ ይገባ የቅድመ ምልመሳ ማመልከቻ ቅጽ**

1) የአመልካች የግል መረጃ

የአመልካች ስም አካላት: ገብረ ስላሴ

የመታወቂያ ቁጥር:

ዕድሜ: \_\_\_\_\_ ያለ:  ሰብ  ማንኛ:

የጋብቻ ወይን:  የሥራ:  የላገባ/የ:

ክልል ደቡብ ዞን ጌዴዳ

ከተማ ወጪጋ ወረዳ ወጪጋ

ቀበሌ ፪፻፲፱ የቤት ቁጥር \_\_\_\_\_

ስልክ(1) 0949165532 2) 0926332103 የትምህርት ደረጃ 10<sup>ኛ</sup>

ወትተዊ የትምህርት ወይን: የሥራ ልላጊ  ተቀጥረዉ በመስራት ላይ ያሉ

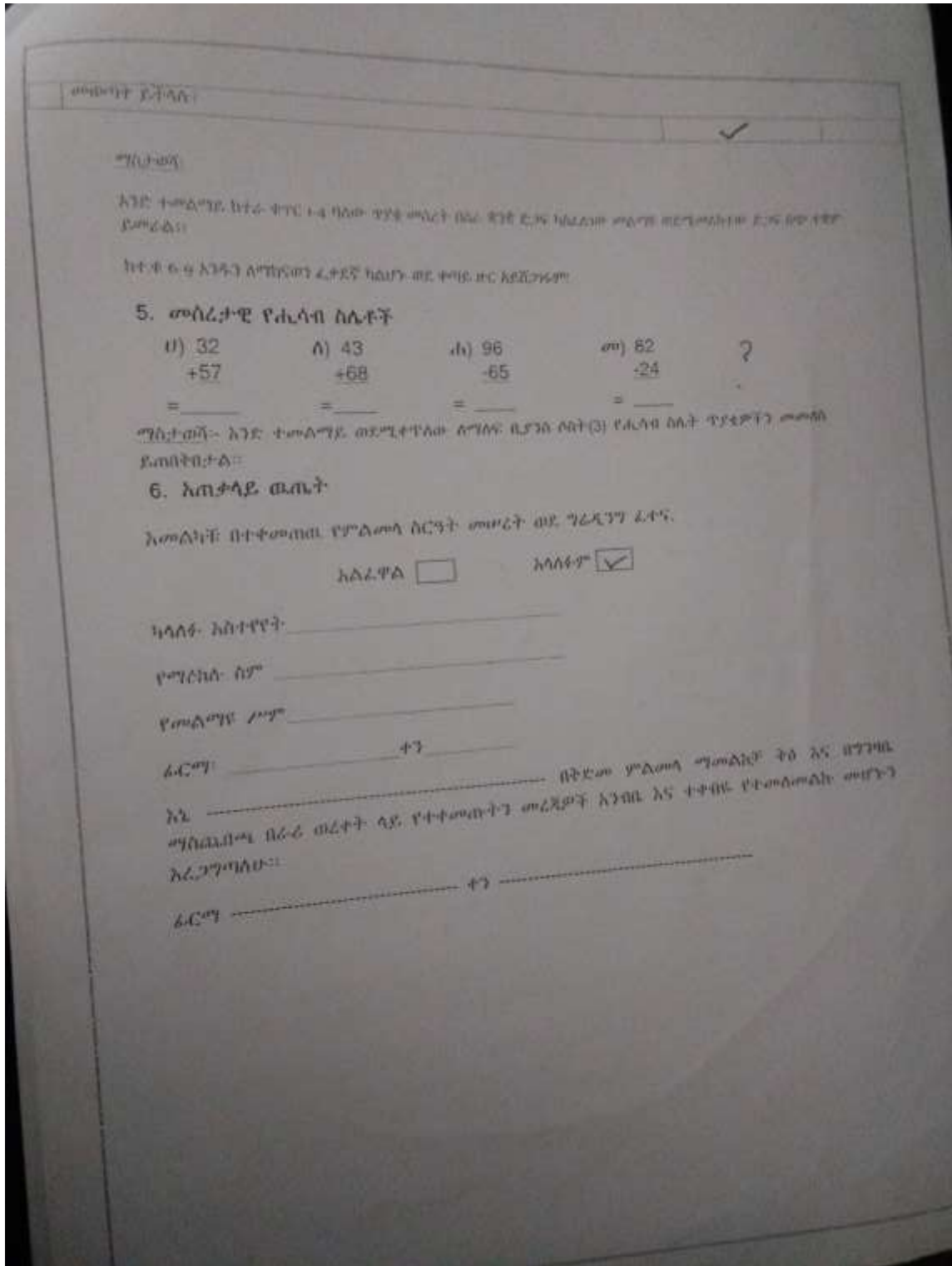
2) ቅድመ ምልመሳ

- የሰውነት አቋም
  - መስማት ይችላሉ  አይችሉም
  - የሁለት እቺ እንቅስቃሴ ብቁ  ብቁ ያልሆነ
  - የሁለት እግር እንቅስቃሴ ብቁ  ብቁ ያልሆነ

3. የዐይን አይታወቁት  አለፋዋል  አለፋዎ

4. ቃለ መጠይቅ

ተ	መረ መጠይቅ (interview question)	በጣም ጥሩ (ሁለት ጥያቄ ከተመለሰ)	ጥሩ ከጌ-3 ጥያቄ ከተመለሰ)	ደጋፊ የግረግ (ሁለት ካልተመለሰ)
1	አስኪ ስለራስዎ የትምህርትና የቤተሰብ ውኔታ ያስተዋውቁ	<input checked="" type="checkbox"/>		
2	ለምን አይነት ስራ እንደሚመለከቱ ያውቃሉ?	<input checked="" type="checkbox"/>		
3	የልብስ ስራ ስራ ላይ ለመሳሰሉት ለምን መረጡ?	<input checked="" type="checkbox"/>		
4	ከዚህ ስራ የሚጠበቁት ወይም ተስፋ የሚያደርጉት ነገር ምንድነው?	<input checked="" type="checkbox"/>		
5	ስራው በሚገኘበት አካባቢ (በሃዋሳ) ለኪራይ በተዘጋጁ ቤቶች ውስጥ (ለአራት) በመኖሪያ በሚከፈለው ወርሃዊ የኪራይ መጠን በሰው ብር 333 ተከራይተው ለመስራት ፋቃደኛ ነዎት?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>መሰረታዊ እና ወሳኝ መጠይቆች</b>			አዎ	አይደለም
6	ስራው የሚገኘው በሰላም መሆኑን ያውቃሉ አላለ ከተማ ውስጥ ለመስራት ዝግጁ ነት?	<input checked="" type="checkbox"/>		
7	በ650 ብር መነሻ ደመወዝ እና ድርጅቱ በሚያቀርበው ጥንቃቄዎች በድምር አጠቃላይ ቁጥ 1100 (በአይነትና በገንዘብ) ለመስራት ፋቃደኛ ነዎት?	<input checked="" type="checkbox"/>		
8	በሃምንት ስድስት ቀን እና በቀን ስምንት ሰዓት ለመስራት ይችላሉ?	<input checked="" type="checkbox"/>		
8	በሰራ ሂደት ውስጥ እና በተጠበቀ የምርት ማስረከቢያ ቀን የሚኖረውን ማን በበቂ ውኔታ			



Annex 6 House rent agreement paper between house owners and IP workers

